

**EGLIN AIR FORCE BASE
FLORIDA**

**GROUND COMBAT TRAINING
SQUADRON COMPLEX**

**FINAL
ENVIRONMENTAL ASSESSMENT**



AUGUST 2011

RCS 08-049

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE AUG 2011		2. REPORT TYPE		3. DATES COVERED 00-00-2011 to 00-00-2011	
4. TITLE AND SUBTITLE Ground Combat Training Squadron Complex Final Environmental Assessment				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Science Applications International Corporation (SAIC), 1140 Eglin Parkway, Shalimar, FL, 32579				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 110	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

**FINAL FINDING OF NO SIGNIFICANT IMPACT
FROM
THE CONSTRUCTION OF THE GROUND COMBAT TRAINING SQUADRON
COMPLEX AT
EGLIN AIR FORCE BASE, FLORIDA**

RCS 08-049

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing procedural provisions of the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] 1500-1508) and United States (U.S.) Air Force regulations implementing NEPA procedures (32 CFR 989), the Air Force has conducted an Environmental Assessment (EA) of probable environmental consequences for the relocation of the Air Force Materiel Command (AFMC) Ground Combat Training Squadron (GCTS) training area and construction of a new complex at Eglin Air Force Base (AFB), Florida.

Description of Proposed Action and Alternatives (EA Section 1.2 to 2.3, Pages 1-1 to 2-10)

Proposed Action “Preferred Alternative” (EA Section 2.1, Page 2-1): The Air Force proposes to relocate the GCTS training area from its current temporary location at “Base Tango” between the West Gate Shoppette and the 33d Fighter Wing on Eglin main base to the adjacent parcel of land known as the Triangle across Hwy. 85. The Triangle is a wooded area encompassed by Hwy. 189, Hwy. 85, and General Bond Boulevard. No permanent structures would be constructed at the Triangle, and only minor tree clearing would occur at that location. The Air Force proposes to continue to use Base Tango and would construct facilities for garrison operations (barracks, weapon cleaning pavilion, warehouse, classrooms, administrative facilities and fuel storage tanks) at Base Tango. Facilities would be single and multi-story with reinforced concrete foundations, split-faced concrete block over steel frames, and have sloped standing seam metal roofs. Facilities would comply with Department of Defense force protection requirements according to unified facilities criteria. The total facility construction area is 42,291 square feet. Existing substandard facilities totaling 27,965 square feet would be demolished.

Alternative 1, Northeast of the Triangle (EA Section 2.2, Page 2-8): Under Alternative 1, the Air Force would relocate GCTS training to an area northeast of the Triangle. This area is 521 acres in size, which is sufficiently large to accommodate GCTS training. The layout and size of training features within this area would be the same as that for the Proposed Action. As with the Proposed Action, Base Tango would be used for the MILCON construction part of the action. This area is identified as Alternative 1.

The No Action Alternative (EA Section 2.3, Page 2-10): Under the No Action Alternative, the AFMC GCTS training area would not be relocated, and facilities would remain at their current location and substandard state. There would be no new construction under the No Action Alternative. Classroom instruction and field training exercises are both currently held at Base Tango.

Alternatives Considered But Not Carried Forward (EA Section 2.4, Page 2-10)

Training North of and Adjacent to the Triangle (EA Section 2.4.1, Page 2-10): This location was eliminated due to possibly unavoidable impacts to wetlands, which run through part of this site. To eliminate any potential for impacts to wetlands, this alternative was dismissed.

Training in an Area Northwest of Triangle (EA Section 2.4.2, Page 2-10): Northwest of the Triangle is an area 377 acres in size, which is sufficiently large to accommodate GCTS training. However, there is a conflict with the Air Force Special Operations Skeet Range, which is slated to occupy this location.

Alternatives Located Within the Eglin Military Complex Interstitial Areas (EA Section 2.4.3, Page 2-10): Over the last several years, the Air Force has evaluated several areas within the Eglin Military Complex but each was dismissed from consideration due to conflicts with other future missions, location away from Eglin Main Base, and the need to build or extend supporting infrastructure such as roads or utilities, and cost. Section 2.4 of the EA provides illustration of the multiple locations considered but dismissed over the history of the environmental analysis conducted for this project.

Summary of Anticipated Impacts (EA Chapter 4, Pages 4-1 to 4-10)

Air Quality (EA Section 4.1, Page 4-1): Air quality impacts would not be significant. The Proposed Action emissions would not be greater than 10 percent of the Region of Influence's (ROI) annual baseline emissions.

Water Resources (EA Section 4.2, Pages 4-2 to 4-3): Potential impacts to ground and surface water would be negligible. Furthermore, the Air Force would obtain all appropriate permits prior to the commencement of any ground-disturbing activities. Construction of impervious area would require coverage under the National Pollutant Discharge Elimination System (NPDES) regulation as administered by the Florida Department of Environmental Protection (FDEP) (Rule 62-621, FAC). Also, an Erosion, Sedimentation, and Pollution Control Plan would be required. In accordance with FDEP regulations, the Proposed Action would likely require an Environmental Resource Permit (ERP).

Noise (EA Section 4.3, Pages 4-3 to 4.5): There would be no significant noise impacts from the Proposed Action from an occupational hazard standpoint, nor to nearby receptors from training munitions noise. Battlefield simulators and practice grenades would be expended within a fenced area at the approximate center of the Triangle training area. The battlefield simulator is approximately 1,000 feet from the nearest public receptor, the University of Florida's Graduate Engineering & Research Center (REEF). Wooded areas, which separate the Triangle from the REEF, would attenuate or dampen the noise perceived at the REEF location such that noise would not interfere with classroom instruction. Additionally, the walls of the facilities would reduce noise from outside sources.

Under current conditions, proposed classroom facilities at Base Tango would be situated in an area of noise of between 65 and 70 dBA on average from aircraft associated with the Eglin Main airfield. Instructors and students involved in training within the Triangle would be exposed on

average to noise of 65 to 70 dBA from current airfield operations, which would not exceed the 8-hour 85 dB National Institute of Occupational Safety and Health (NIOSH) damage risk criteria for occupational noise exposure.

Biological Resources (EA Section 4.4, Pages 4-6 to 4.7): There would be no significant impacts to biological resources. Impacts to vegetation from land clearing would consist of less than 100 acres of Sandhill habitat. Endangered or threatened species would not be injured or killed. Eglin Natural Resources personnel would conduct site surveys prior to any construction activities and relocate, as necessary, any gopher tortoises found. If any animals were located during the surveys, a relocation permit would be obtained from the Florida Fish and Wildlife Conservation Commission (FWC) and animals in imminent danger from vegetative clearing would be relocated. Instructing vehicle and equipment operators to stop and allow tortoises, indigo snakes, and bears to move away from the area before continuing activities would minimize the potential for vehicle strikes.

The proposed action would potentially impact 100 acres of migratory bird habitat and has the potential to cause adverse impacts to the resource. During this time, potential impacts would be greatest as land clearing could interrupt breeding and injure or kill adults and young. To avoid impacts to migratory birds, land clearing should occur on or after September 1 through March 15 to avoid the nesting season. The Migratory Bird Treaty Act (MBTA) does not contain any prohibition that applies to the destruction of a migratory bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. If clearing occurs before September 1, care would be taken to leave snags in place. If snags need to be removed for construction purposes, they may be removed after September 1. Activities will cease if active bird nests with eggs or young are found. Coordination with Eglin Natural Resources Section, 96 CEG/CEVSN, is required prior to project initiation to ensure compliance with the MBTA. Therefore, no significant impacts to migratory birds are expected from land clearing activities.

Recreation (EA Section 4.5, Pages 4-7 to 4-8): Because military activities take precedence over recreational activities, it is possible that the entire Triangle area will be closed to archery, a current recreational use of the area. The area of the Proposed Action that could be closed to archery represents nearly 1.7 percent of the total remaining area available for archery on Eglin AFB. Since this represents a small portion of the total area available for archery, it is expected that there would be no significant impact to recreation under the Proposed Action.

Also, 90 percent of the Base Tango area is currently closed to the public. MILCON construction would not affect the 44 acres in the northeastern area of Base Tango that is currently used for archery since the construction would occur in the southern portion of Base Tango.

Cultural (EA Section 4.6, Page 4-9): No cultural resources would be adversely affected by the selection of the Proposed Action. No known archaeological sites, historic structures, historic districts, historic cemeteries, or Traditional Cultural Properties have been previously located within the area. Should any inadvertent discoveries of archaeological materials be made during the course of land clearing, all actions in the immediate vicinity would cease and efforts would be taken to protect the find from further impact.

Transportation (EA Section 4.7, Page 4-10): There would be no significant transportation impacts from the Proposed Action. GCTS generated traffic to the Triangle training location would not decrease the level of surface for any of the roads used to access the Triangle from Base Tango. At most, the GCTS increase in traffic would be on the order of less than 10 vehicles a few times a week. For access to the Triangle from Highway 189, a merge or turn lane into the Triangle area would be necessary. Likewise, a turn lane would be required if GCTS units desired to access the Triangle from General Bond Boulevard.

Since the GCTS is currently occupying Base Tango, there would be no change in road usage. Units would continue to access area through local Eglin Main base roadways, such as Nomad Way.

Public Comment and Agency Review (EA, APPENDIX A)

A public notice was published in the *Northwest Florida Daily News* on **April 18, 2009** inviting the public to review and comment upon the EA. Appendix A of the EA addresses public notification. The public comment period closed on **May 5, 2009**. No comments were received.

The EA was provided to the State Clearinghouse for review and Coastal Zone Management Act (CZMA) concurrence. The State Clearinghouse review is included in Appendix A of the EA.

Management Actions (EA Section 6-2, pages 6-1 to 6-3)

Water Resources (EA Section 6.2.1, Page 6-1)

The proponent will ensure that the design engineer coordinates with 96 CEG/CEVC Compliance Engineering (850-882-7760) for final stormwater design and permitting

- The proponent would ensure that the construction contractor implements the following storm water and erosion control BMPs:
 - Silt fences and hay bales may be required during construction to avoid soil run-off
 - Inspect BMPs on a weekly basis and after rain events. Replace fencing as needed
 - In all permits and site plan designs, include site-specific management requirements for erosion and sediment control
 - For construction equipment (e.g., cement mixers), designate “staging areas” to contain any chemicals, solvents, or toxins and prevent them from entering surface waters
 - Stabilize the construction site entrance using FDOT approved stone and geotextile (filter fabric)
 - Inspect and maintain the aforementioned BMPs to ensure effectiveness
- Proponent will not allow firing of small arms, smoke grenades, or pyrotechnics within or into wetlands or into surface water.

Biological Resources

General Condition (EA Section 4.7.2 & 6.2.2, Pages 4-18 to 6-3)

- Since the site was last surveyed in 2008-2009, the proponent is responsible for funding wildlife related efforts (i.e. surveys, habitat protection, monitoring, relocation, or reports) required by law prior to construction activities. Proponent may be required to obtain their own qualified contractor and is responsible for surveying for the protected species

listed in the EA. Proponent must provide wildlife/plant survey results to Eglin Natural Resources Section. POC: Bob Miller, 96 CEG/CEVSN, 883-1153 or Kathy Gault, 96 CEG/CEVSN, 883-1145.

- To avoid impacts to migratory birds, land clearing should occur on or after September 1 through March 15 to avoid the nesting season. Coordination with Eglin Natural Resources Section, 96 CEG/CEVSN, is required prior to project initiation to ensure compliance with the Migratory Bird Treaty Act.
- The proponent is required to notify the Eglin Natural Resources Section (882-4164) if a black bear, gopher tortoise, or indigo snake is sighted.

Eastern Indigo Snake (EA Section 6.2.2, Page 6-2)

- Construction personnel will be provided a description of the eastern indigo snake and its protection under Federal Law. They would be given instructions not to harass injure, harm, or kill this species.
- Should an indigo snake be sighted, construction personnel would be directed to cease any activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming such activities.

Gopher Tortoise (EA Section 6.2.2, Page 6-2)

- A gopher tortoise survey will be required prior to any construction project on this site. All surveys/relocations must be coordinated through Eglin Natural Resources Section.
- Should a gopher tortoise burrow be identified within the proposed path of construction by construction personnel, work would cease until Natural Resources personnel have investigated the burrow and relocated any gopher tortoise or commensals to a suitable location.
 - Gopher tortoise and/or commensal relocation will be performed in accordance with Eglin AFB's Gopher Tortoise Relocation Permit. Contact Eglin Natural Resources. POC: Bob Miller, 96 CEG/CEVSN, 883-1153 or Kathy Gault, 96 CEG/CEVSN, 883-1145.

Cultural (EA Section 6.2.4, Page 6-3)

- Should any inadvertent discoveries of archaeological materials be made during the course of land clearing or training activities, all actions in the immediate vicinity would cease and efforts would be taken to protect the find from further impact. The 96th Civil Engineer Group, Cultural Resources Section (96 CEG/CEVSH) must be immediately notified of discovery.

Permits and Plans (EA Chap 6, Page 6-1 to 6-3)

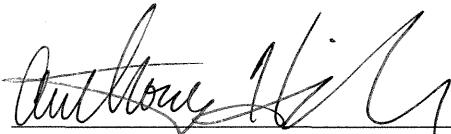
The following permits and plans are required for construction projects, if applicable:

- A National Pollutant Discharge Elimination System (NPDES) Generic Permit for Storm Water Discharge from Large Construction Activities from Florida Department of Environmental Protection (FDEP)
 - The NPDES permit must contain a site-specific Storm Water Pollution Prevention Plan (SWPPP) that identifies appropriate erosion and sediment control measures

- An Environmental Resource Permit (ERP) for construction storm water discharges will be required from Northwest Florida Water Management District (NFWFMD)

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and the environmental analysis contained in the attached EA and as summarized above, we have determined that the Proposed Action of locating the GCTS Complex to Base Tango and Triangle Areas (preferred and selected alternative) shall have no significant impact on the quality of the human or natural environment and, therefore, an Environmental Impact Statement does not need to be prepared. This decision has been made after taking into account all submitted information and considering a full range of practical alternatives that would meet the projects requirements. This analysis fulfills the requirements of the NEPA, the President's Council on Environmental Quality and 32 CFR Part 899.



ANTHONY A. HIGDON, Colonel, USAF
Commander, 96th Civil Engineer Group

26 Oct 2011

DATE

GROUND COMBAT TRAINING SQUADRON COMPLEX

FINAL ENVIRONMENTAL ASSESSMENT

Prepared by:



**Science Applications International Corporation (SAIC)
1140 Eglin Parkway
Shalimar, Florida 32579**

RCS 08-049

AUGUST 2011



PRINTED ON RECYCLED PAPER

TABLE OF CONTENTS

	<u>Page</u>
List of Tables	iv
List of Figures.....	iv
List of Acronyms, Abbreviations, and Symbols.....	v
 1. PURPOSE AND NEED FOR THE PROPOSED ACTION.....	 1-1
1.1 Introduction	1-1
1.2 Proposed Action	1-1
1.3 Background	1-1
1.4 Need for the Proposed Action	1-3
1.5 Related Environmental Documentation.....	1-3
1.6 Scope of the Environmental Assessment.....	1-4
1.6.1 Environmental Issues Eliminated Through Preliminary Impact Analysis of the Proposed Action.....	1-4
1.6.2 Issues Associated with the Proposed Action	1-5
1.7 Applicable Regulatory Requirements and Coordination	1-8
1.7.1 Air Quality	1-8
1.7.2 Water Resources	1-8
1.7.3 Noise.....	1-9
1.7.4 Biological Resources	1-9
1.7.5 Cultural Resources.....	1-10
1.7.6 Transportation.....	1-10
1.7.7 Land Use.....	1-11
1.7.8 Socioeconomics.....	1-11
1.7.9 Solid Waste Management Laws and Regulations.....	1-11
1.7.10 Hazardous Waste Management Laws and Regulations	1-12
1.7.11 Summary of Required Permits and Regulatory Coordination	1-12
1.8 Document Organization.....	1-12
 2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES.....	 2-1
2.1 Description of the Proposed Action: Training at the Triangle and MILCON Construction at Base Tango.....	2-1
2.1.1 Throughput Capabilities and Schedule	2-1
2.1.2 Field Training Activities.....	2-1
2.1.3 Base Defense Operations.....	2-4
2.1.4 Vehicle Escorts	2-4
2.1.5 Ordnance Expenditures.....	2-6
2.1.6 GCTS Complex Features and Construction Requirements.....	2-7
2.2 Alternative 1: Northeast of the Triangle.....	2-8
2.3 No Action: Remain at Base Tango	2-10
2.4 Alternatives Considered but Not Carried Forward	2-10
2.4.1 Training North of and Adjacent to the Triangle	2-10
2.4.2 Training in an Area Northwest of the Triangle.....	2-10
2.4.3 Alternatives Located within the Eglin Military Complex Interstitial Areas	2-10
 3. AFFECTED ENVIRONMENT.....	 3-1
3.1 Air Quality.....	3-1
3.1.1 Definition of the Resource.....	3-1
3.1.2 Existing Condition.....	3-2
3.2 Water Resources.....	3-4
3.2.1 Definition of the Resource.....	3-4
3.2.2 Existing Condition.....	3-7
3.3 Noise.....	3-8
3.3.1 Definition of the Resource.....	3-8
3.3.2 Existing Condition	3-9

TABLE OF CONTENTS, CONT'D

	<u>Page</u>
3.4 Biological Resources.....	3-11
3.4.1 Definition of the Resource.....	3-11
3.4.2 Existing Condition.....	3-11
3.5 Recreation.....	3-15
3.5.1 Definition of the Resource.....	3-15
3.5.2 Existing Condition.....	3-16
3.6 Cultural.....	3-18
3.6.1 Definition of the Resource.....	3-18
3.6.2 Existing Condition.....	3-18
3.7 Transportation	3-19
3.7.1 Definition of the Resource.....	3-19
3.7.2 Existing Condition.....	3-19
 4. ENVIRONMENTAL CONSEQUENCES	 4-1
4.1 Air Quality.....	4-1
4.1.1 Proposed Action Training Location: Triangle and Base Tango MILCON Location.....	4-1
4.1.2 Alternative 1 Training Location: Northeast of Triangle and Base Tango MILCON Location.....	4-1
4.1.3 No Action Alternative	4-1
4.2 Water Resources.....	4-2
4.2.1 Proposed Action Training Location.....	4-2
4.2.2 Alternative 1 Training Location: Northeast of the Triangle	4-3
4.2.3 No Action Alternative and Proposed Action MILCON Construction Location	4-3
4.3 Noise.....	4-3
4.3.1 Proposed Action	4-3
4.3.2 Alternative 1 Training Location: Northeast of the Triangle	4-5
4.3.3 No Action Alternative: Base Tango.....	4-5
4.4 Biological Resources.....	4-6
4.4.1 Proposed Action	4-6
4.4.2 Alternative 1 Training Location: Northeast of the Triangle	4-7
4.4.3 No Action Alternative: Base Tango.....	4-7
4.5 Recreation.....	4-7
4.5.1 Proposed Action	4-8
4.5.2 Alternative 1 Training Location: Northeast of the Triangle	4-8
4.5.3 No Action Alternative	4-8
4.6 Cultural.....	4-9
4.6.1 Proposed Action	4-9
4.6.2 Alternative 1 Training Location: Northeast of the Triangle	4-9
4.6.3 No Action Alternative: Base Tango.....	4-9
4.7 Transportation	4-9
4.7.1 Proposed Action	4-9
4.7.2 Alternative 1 Training Location: Northeast of the Triangle	4-10
4.7.3 No Action Alternative: Base Tango.....	4-10
 5. CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES.....	 5-1
5.1 Past and Present Actions	5-1
5.2 Reasonably Foreseeable Future Actions.....	5-1
5.3 Analysis of Cumulative Impacts.....	5-2
5.3.1 Air Quality.....	5-2
5.3.2 Noise.....	5-2
5.3.3 Biological Resources	5-3
5.3.4 Recreation.....	5-4

TABLE OF CONTENTS, CONT'D

	<u>Page</u>
5.3.5 Cultural Resources.....	5-4
5.3.6 Transportation.....	5-4
5.4 Irreversible and Irretrievable Commitment of Resources.....	5-5
5.4.1 No Action Alternative	5-5
6. PLANS, PERMITS, AND MANAGEMENT ACTIONS	6-1
6.1 Regulations, Plans, and Permits	6-1
6.2 Management Actions.....	6-1
6.2.1 Water Resources	6-1
6.2.2 Biological Resources	6-2
6.2.3 Debris	6-3
6.2.4 Cultural Resources.....	6-3
7. LIST OF PREPARERS	7-1
8. REFERENCES.....	8-1
APPENDIX A Agency and Public Review	

LIST OF TABLES

	<u>Page</u>
Table 2-1. Estimated GCTS Complex Training Mission Expenditures.....	2-7
Table 3-1. National Ambient Air Quality Standards	3-1
Table 3-2. Baseline Emissions Inventory for Okaloosa County	3-3
Table 3-3. Proposed Project Area Habitats (Acres).....	3-11
Table 3-4. Alternative 1 Area Habitat (Acres).....	3-12
Table 3-5. Recreational Permits Issued for Eglin AFB between FY2005 and FY2007	3-15
Table 3-6. Hunting Seasons on Eglin AFB in FY2008.....	3-16
Table 3-7. Historic Structures Located Within the Southern Portion of Area 2 of the Strategic Air Command Alert Historic District	3-19
Table 3-8. Status of Roads Near the Project Areas.....	3-20
Table 3-9. Status of Roads Near or Leading to the Alternative 1 Location	3-20
Table 4-1. Received Noise and Distance to Receptors from Simunition Detonations.....	4-4

LIST OF FIGURES

	<u>Page</u>
Figure 1-1. Regional Setting of the Proposed Action and Alternative.....	1-2
Figure 1-2. Resources Not Carried Forward for Detailed Analysis.....	1-6
Figure 2-1. Proposed Action and Alternative Locations.....	2-2
Figure 2-2. Notional Layout of Training Structures and Areas in the Triangle.....	2-5
Figure 2-3. GCTS Complex Escort Vehicles.....	2-6
Figure 2-4. Photo Illustrations of MOUT Training	2-9
Figure 2-5. Example of Wire Configuration Used for a POW Camp Perimeter.....	2-9
Figure 2-6. Alternative Locations Considered But Dismissed.....	2-11
Figure 3-1. Water Resources within or near the Proposed Action or Alternative Locations	3-5
Figure 3-2. Ecological Associations of the Proposed and Alternative Locations	3-13
Figure 3-3. Biological Resources within or near the Proposed Action and Alternative Locations.....	3-14
Figure 3-4. Recreational Usage within and near the Proposed and Alternative Locations	3-17
Figure 3-5. Roads Near the Proposed and Alternative Action Locations	3-22

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS

$\mu\text{g}/\text{m}^3$	Micrograms per Cubic Meter
46 TW/CC	46 th Test Wing/Commander
7SFG	7 th Special Forces Group
7SFG(A)	7 th Special Forces Group (Airborne)
96 CEG/CEVCE	96th Civil Engineer Group/Environmental Engineering Section
96 CEG/CEVH	96th Civil Engineer Group/Cultural Resources Branch
96 CEG/CEVSN	96th Civil Engineer Group/Natural Resources Section
96 CEG/CEVSNP	96th Civil Engineer Group/Fire Management Section
96 CEG/CEVSP	96th Civil Engineer Group/Environmental Analysis Section
96 GCTS/SFM	96th Ground Combat Training Squadron/Security Forces Manager
96 SFS/SFM	96th Security Forces Squadron/Security Forces Manager
AAC	Air Armament Center
AFB	Air Force Base
AFI	Air Force Instruction
AFMC	Air Force Materiel Command
AFPD	Air Force Policy Directive
AICUZ	Air Installation Compatible Use Zone
ATV	All-Terrain Vehicles
BMP	Best Management Practice
BRAC	Base Realignment and Closure
C&D	Construction and Demolition
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COMAFMC	Commander Air Force Materiel Command
CONUS	Contiguous United States
CZMA	Coastal Zone Management Act
dB	Decibel
dBA	A-Weighted Decibels
dB(C)	C-Weighted Decibels
dB(P)	Unweighted Decibels
DCA	Department of Community Affairs
DNL	Day-Night Average Sound Level
DoD	Department of Defense
EA	Environmental Assessment
ECP	Entry Control Point
EFC	Expeditionary Field Camp
EIS	Environmental Impact Statement
EO	Executive Order
ERP	Environmental Resource Permit
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity Distance
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FICUN	Federal Interagency Committee on Urban Noise
ft ²	Square Feet
FW	Fighter Wing
FWC	Florida Fish and Wildlife Conservation Commission
FY	Fiscal Year
GCTS	Ground Combat Training Squadron
GIS	Geographic Information System
HAP	Hazardous Air Pollutant
HAZMAT	Hazardous Materials
HMMWV	High Mobility Multi-Wheeled Vehicle

LIST OF ACRONYMS, ABBREVIATIONS, AND SYMBOLS, CONT'D

HQ AFMC/SF	Headquarters, Air Force Materiel Command/Security Forces
Hz	Hertz
IJTS	Initial Joint Training Site
ITC	Integrated Training Center
JSF	Joint Strike Fighter
kV	Kilovolt
lb	Pound
Ldn	Day-Night Average Sound Level
LOS	Level of Service
LZ	Landing Zone
m²	Square Meters
MAJCOM	Major Command
MILCON	Military Construction
MOUT	Military Operations on Urban Terrain
NAAQS	National Ambient Air Quality Standards
NAPS	Noise Assessment and Prediction System
NATO	North Atlantic Treaty Organization
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute of Occupational Safety and Health
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
POW	Prisoner of War
ppm	Parts per Million
RC3	Range Configuration Control Committee
RCW	Red-Cockaded Woodpecker
RDESC	Range Development Steering Committee
REA	Range Environmental Assessment
REEF	University of Florida's Research and Engineering Education Facility
ROI	Region of Influence
RTC	Regional Training Center
SAC	Strategic Air Command
SEL	Sound Exposure Level
SHPO	State Historic Preservation Officer
SIS	Strategic Intermodal System
SR	State Road
SWPPP	Stormwater Pollution Prevention Plan
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish And Wildlife Service
USGS	U.S. Geological Survey
UXO	Unexploded Ordnance

1. PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes and presents the potential environmental consequences associated with the relocation of the Ground Combat Training Squadron (GCTS) Complex, Eglin Air Force Base (AFB), Florida (Figure 1-1). The GCTS provides the facilities, infrastructure, and personnel for training approximately 1,500 students annually for combat operations. Air Force Instruction (AFI) 31-301, *Air Base Defense*, requires security forces deployment teams to attend a Major Command (MAJCOM) Regional Training Center (RTC) at least once every three years (recommended every two years).

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508), and Air Force regulations implementing NEPA procedures (32 CFR 989).

1.2 PROPOSED ACTION

The Air Force proposes to relocate the GCTS training area from its current temporary location at Base Tango, between the West Gate Shoppette and the 33rd Fighter Wing on Eglin Main Base, to the adjacent parcel of land across Hwy. 85 known as the Triangle. The Triangle is a wooded area encompassed by Hwy. 189, Hwy. 85, and General Bond Boulevard. No permanent structures would be constructed at the Triangle, and only minor tree clearing would occur at that location. The Air Force proposes to continue to use Base Tango and would construct facilities for garrison operations (barracks, weapon cleaning pavilion, warehouse, classrooms, administrative facilities, and fuel storage tanks) at Base Tango. Facilities would be single and multi-story with reinforced concrete foundations, split-faced concrete block over steel frames, and sloped standing seam metal roofs. Facilities would comply with Department of Defense (DoD) force protection requirements according to unified facilities criteria. The total facility construction area is 42,291 square feet (ft²). Existing substandard facilities totaling 27,965 ft² would be demolished.

1.3 BACKGROUND

On 24 May 2000, the Commander, Air Force Materiel Command (COMAFMC) directed an exploratory survey to determine the feasibility of establishing a warfare training center at Eglin AFB. The Eglin AFB 96th Security Forces Squadron/Security Forces Manager (96 SFS/SFM), as representative of Headquarters, Air Force Materiel Command, Security Forces (HQ AFMC/SF), Wright-Patterson AFB, Ohio, coordinated with the Eglin AFB Range Configuration Control Committee (RC3) in identifying training locations and facilities for the Air Force Materiel Command (AFMC) GCTS Complex at Eglin AFB.



Figure 1-1. Regional Setting of the Proposed Action and Alternative

The proposed locations were evaluated in an EA completed in 2003, the *Final Environmental Assessment for the AFMC Regional Training Center* (U.S. Air Force, 2003). The solution of continuing to use Base Tango as temporary facilities followed by interim use of Landing Zone (LZ) East within five years, and then permanent establishment of facilities and training areas south of Test Area D-51, was never fully implemented. Security Forces had been at Base Tango prior to the EA and remained, although due to costs of unexploded ordnance (UXO) clearing, the LZ east and Test Area D-51 south areas were not utilized as planned.

In February 2008, the GCTS briefed the Range Development Steering Committee (RDESC) on relocating the GCTS training from its temporary location at Base Tango to the adjacent triangular parcel of land, and on constructing permanent facilities at Base Tango. The 46th Test Wing/Commander (46 TW/CC) approved the proposal, pending the outcome of the Base Realignment and Closure (BRAC) Environmental Impact Statement (EIS) and the 7th Special Forces Group (7SFG) cantonment option for the same location.

1.4 NEED FOR THE PROPOSED ACTION

This action is needed for the following reasons:

- The Base Tango location as it is currently being utilized is a temporary solution for training. The amount of space at this location is insufficient to accommodate the training needs of the GCTS.
- A new GCTS school is required to teach security forces personnel base defense procedures and tactics. A state of the art security forces GCTS Complex is required to provide specialized training of security forces to ensure the best security posture at contiguous United States (CONUS) and overseas locations. The post 9/11 operations tempo has resulted in an increased demand for ground combat skills training and student body size has grown.
- The GCTS currently performs operations out of 15 separate areas which is not conducive to successful completion of training requirements being placed upon security forces. The warehouses associated with the operating areas are substandard for long term use. One warehouse is condemned and on the demolition list, and the other is labeled “historical” so improvements are restricted. In accordance with the installation master plan, the Base Tango field training exercise area is no longer useable and is considered an interim location. Students are housed in temporary wooden shelters located within the student beddown area within Base Tango. The beddown area is spare, intended for short-term use, and the supporting infrastructure has a short life span. The field training area itself is restricted, congestive, and not conducive to quality training and future expansion.

1.5 RELATED ENVIRONMENTAL DOCUMENTATION

The following environmental documents are related to the Proposed Action:

- Air Force Form 813, Request for Environmental Impact Analysis. RCS 08-049. January 25, 2008. Submitted to the 96th Civil Engineer Group, Environmental Analysis Section (96 CEG/CEVSP) by the 96th Ground Combat Training Squadron/Security Forces Manager (96 GCTS/SFM).
- *Final Environmental Assessment for the AFMC Regional Training Center, Eglin AFB, Florida*. 2003 (U.S. Air Force, 2003).

1.6 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The scope of the EA pertains to the geographic area and resource categories affected, the components of the action, and the environmental issues that could potentially result from the action. Very minor or nonexistent issues discussed in Section 1.6.1 have been eliminated from detailed analysis in order to focus on more important issues, which are identified in Section 1.6.2 and depicted in Figure 1-2.

1.6.1 Environmental Issues Eliminated Through Preliminary Impact Analysis of the Proposed Action

Socioeconomic Resources

Impacts to socioeconomic resources were not carried forward for further analysis. Socioeconomic resources include factors associated with the human environment such as population, employment and earnings, community services, and demographics. The GCTS Complex logistic support of instructors and administrative staff would come from the Eglin AFB 96 SFS/SFM, which limits the requirement for relocation of additional personnel from other locations. Thus there would be no noticeable changes to population, employment, earnings, nor would there be impacts on community services or changes to the demographic.

Environmental Justice and Special Risks to Children

In accordance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, federal agencies must identify and address, as appropriate, disproportionately high and adverse environmental and human health effects in minority and low-income communities, and 32 CFR 989, *Environmental Impact Analysis Process*, addresses the need for consideration of environmental justice issues in compliance with the NEPA. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, directs federal agencies to identify and assess environmental health and safety risks to children, coordinate research priorities on children's health, and ensure that their standards take into account special risks to children. The Proposed and Alternative Actions would take place on land adjacent to Base Tango at Eglin AFB. No minority or low-income populations or concentrated areas with children occur near the project area. Therefore, impacts to environmental justice and special risks to children would not be an issue and are not further analyzed.

Soil

Potential impacts to soil would consist of disturbance during construction. Soil impacts were not addressed in detail because the issue of erosion is addressed in the discussion of impacts to water resources from stormwater. Additionally, the potential for soil erosion is low given the flat terrain and permeable sandy soil, which would facilitate downward percolation of stormwater, and limit the potential for surface transport.

Hazardous Materials/Solid Waste

Issues with hazardous materials (HAZMATs) are limited to ensuring that necessary management actions are taken with regard to these materials. Any HAZMAT used in the construction project would be tracked through the HAZMAT management and reporting program. Because HAZMATs would be tracked and accounted for, further analysis is not warranted.

Fuel storage would comply with AFI 32-7044, *Storage Tank Compliance* (U.S. Air Force, 2003a) for all aspects of installation, inspection, spill response, clean up, and reporting.

The issue of solid waste was eliminated from further analysis. Construction activities would potentially generate minor amounts of solid waste such as construction debris, land clearing debris, and soil. These waste streams would be segregated at generation for recycling or disposal at a secure, permitted facility in accordance with Air Armament Center (AAC) Plan 32-7, *Solid Waste Management*. As a result, no adverse environmental impacts are anticipated, and further analysis was not warranted.

The project sites have not been classified as having potential or possible UXO contamination. As a result, no further analysis is warranted.

Land Use

The existing land use for the Triangle is defined as open space, and the site is currently largely undeveloped woodlands. A primary Gulf Power 115-kilovolt (kV) overhead transmission line traverses the site in a north-south orientation, and a natural gas line crosses the northern end of the site. The transmission line would not conflict with the proposed siting of training area features. Immediately adjacent land uses include industrial and aircraft operations, and maintenance associated with the 33 Fighter Wing (FW) area; the range areas of the Eglin Reservation; administrative; community or service (University of Florida's Research and Engineering Education Facility [REEF] and Air Force Armament Museum); and open space. Because the primary activity within the Triangle would be training, land use would likely remain defined as open space, and likewise for the alternative areas. There would be no change in land use.

1.6.2 Issues Associated with the Proposed Action

Air Quality

Land clearing and construction would produce dust and combustive emissions. Proposed fuel storage tanks will need to be added to the existing Title V Air Quality permit.

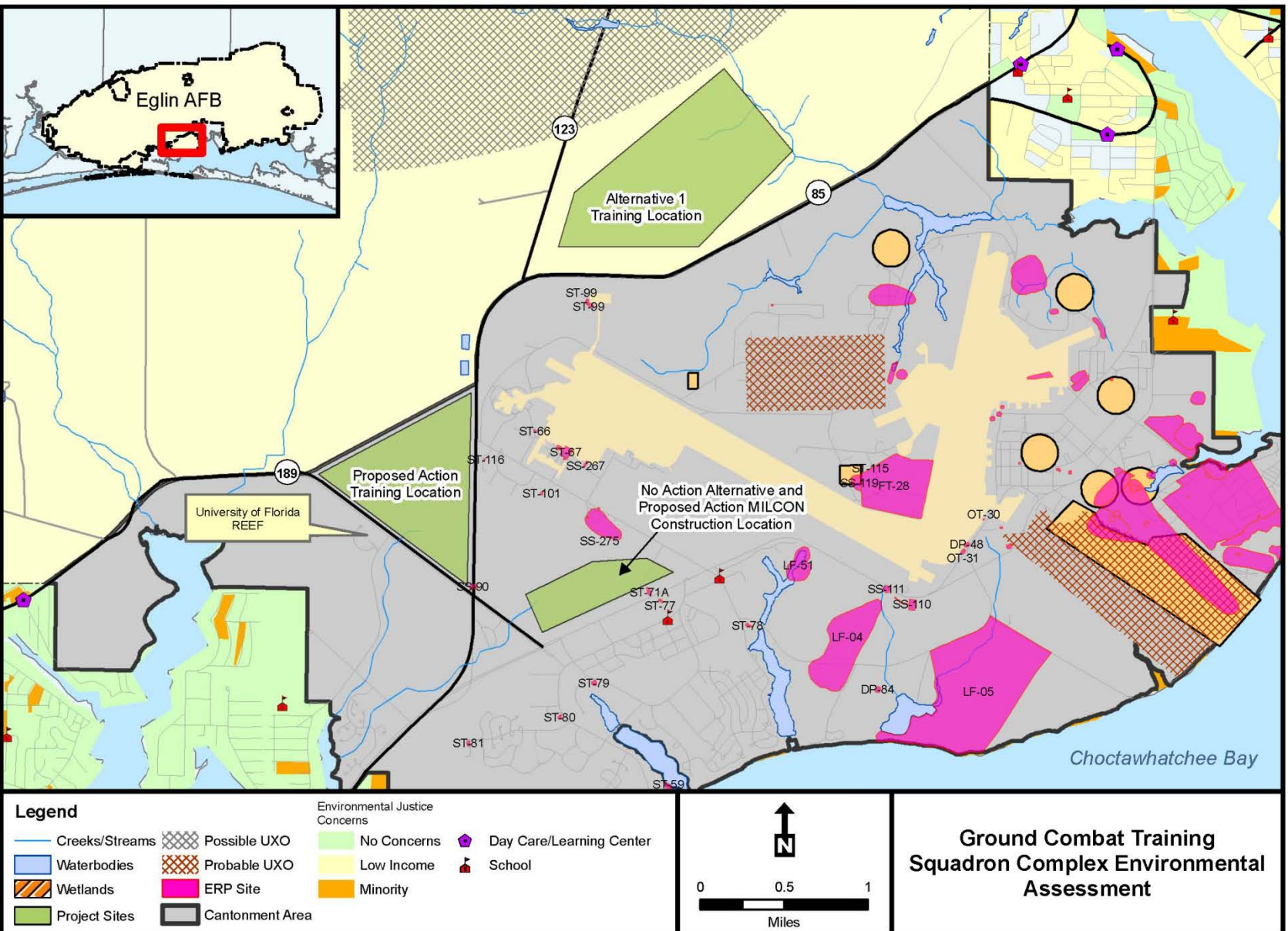


Figure 1-2. Resources Not Carried Forward for Detailed Analysis

Water Resources

Eglin AFB Geographic Information System (GIS) maps indicate that surface waters are not located within construction footprints, or near the project training sites. Groundwater would not be affected and water usage would not increase. However, as with many construction projects, there would be ground disturbance and the potential for displaced dust and soil to contribute to stormwater runoff.

Noise

The Proposed Action involves the use of simunitions and training munitions. Simunitions are about as loud as a shotgun blast. The location of the proposed and alternative sites near the flight line and aircraft requires an evaluation of potential noise exposure on indoor and outdoor GCTS classroom and training participants. Construction noise would be temporary, of low intensity, and most likely indiscernible above flight line noise. For these reasons, construction noise would not be an issue requiring in-depth analysis. Thus, for the analysis in this EA only, noise generated during training, and noise exposure to instructors and participants from aircraft overflights, is evaluated.

Transportation

The proposed and alternative training locations would require access from one or more of several area highways. This EA evaluates the potential for the Proposed Action and Alternative Action to impact the existing level of service on these roads.

Biological Resources

The Proposed Action and Alternative Action involve land clearing in wooded areas of the Eglin Main Base and Eglin Reservation. The analysis discusses those species likely to be affected.

Recreation

The Proposed Action and Alternative Action would take place on land adjacent to Base Tango that currently is open for recreational purposes. It is assumed that recreational activities in the Proposed Action and Alternative Action areas will be closed during training exercises either temporarily or permanently. Thus, this EA evaluates the impacts to recreational activities under each alternative.

Cultural Resources

The Proposed and Alternative Actions would involve ground disturbing activities which can potentially affect buried cultural resources. This analysis will evaluate the likelihood of occurrence of cultural resources within the project area.

1.7 APPLICABLE REGULATORY REQUIREMENTS AND COORDINATION

Reviews of pertinent documents, site visits, and communication with Eglin AFB personnel found no identified threatened and endangered species or cultural resources within the proposed project area. As a result, no consultations with regulatory agencies for cultural resources or threatened or endangered species would be required for construction of the GCTS facilities at Base Tango or training within the Triangle. If the proponent or its contractors discover any cultural artifacts during construction activities, coordination with 96th Civil Engineer Group, Cultural Resources Branch (96 CEG/CEVH) is required. Section 5 discusses additional management actions required to reduce any potential impacts to resource areas. Applicable regulatory requirements and coordination are explained in the following sections.

1.7.1 Air Quality

In accordance with EO 12088, *Federal Compliance with Pollution Control Standards*, DoD facilities must ensure that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to the Clean Air Act (CAA) and other environmental laws. In support of EO 12088, Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, requires Air Force facilities to comply with applicable federal, state, and local environmental laws and standards. Furthermore, AFI 32-7040, *Air Quality Compliance*, establishes a framework for Air Force facilities to follow in order to comply with applicable CAA requirements. Within this framework are the requirements to obtain and maintain operating permits as required, and to prepare and periodically update a comprehensive base emissions inventory.

In 1996, Eglin AFB determined that emission thresholds needed to qualify as a “major” source under the federal Title V Operating Program promulgated in 40 CFR 70, were exceeded for various criteria pollutants and hazardous air pollutants (HAPs). As a result of this determination, Eglin AFB was issued a Title V permit dated 2 July 1999. Eglin AFB’s current Air Operating Permit is valid through June of 2014. The Title V permit will be valid until 2019.

1.7.2 Water Resources

The Proposed Action would require an Erosion, Sedimentation, and Pollution Control Plan, commonly referred to as a Stormwater Pollution Prevention Plan (SWPPP), as a requirement of the National Pollutant Discharge Elimination System (NPDES) stormwater construction permit (Florida Administrative Code [FAC] 62-621.300(4)). An Environmental Resource Permit (ERP) stormwater permit would also be required. The proponent would obtain a design and construction permit in accordance with Rule 62-25, FAC because the Proposed Action would increase the impervious surface area. According to Rule 62-25, the proponent must ensure that a Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction be submitted prior to project initiation. Coordination with the 96th Civil Engineer Group, Environmental Engineering Section (96 CEG/CEVCE) is required to obtain stormwater permits and any necessary utility extension permits.

The Coastal Zone Management Act (CZMA) provides for the effective, beneficial use, protection, and development of the U.S. coastal zone. Federal agency activities in the coastal

zone are required to be consistent, to the maximum extent practicable, with approved state Coastal Zone Management Plans. Federal agencies make determinations whether their actions are consistent with approved state plans and submit these determinations for state agency review and concurrence. All relevant state agencies must review the Proposed Action and issue a consistency determination. The FDEP has reviewed and concurred with the Air Force submitted negative determination (Appendix A).

1.7.3 Noise

There are no specific legal limits that apply to military noise. In 1972, Congress passed the Noise Control Act, which imposed limitations on source noise levels of several types of equipment. However, because noise controls could, in some cases, reduce the combat effectiveness of military equipment, military equipment was exempted from these requirements. For the same reason, the Federal Aviation Administration limitations on civilian aircraft noise do not apply to military aircraft. The Air Force participated in the Federal Interagency Committee on Urban Noise (FICUN) development of noise levels and land use compatibility associated with airfields. Noise impacts are defined based on published guidelines on the compatibility of various land uses with noise, and published scientific documents on noise effects.

1.7.4 Biological Resources

The Endangered Species Act (ESA) of 1973 (16 U.S. Code [USC] 1531 to 1544; 1997–Supp) was enacted to provide for the conservation of endangered and threatened species and the ecosystems on which they depend. AFD 32-70 directs the implementation of the ESA. Certain federal activities may require an ESA Section 7 Consultation with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) if impacts to federally listed species are possible. Avoidance of impacts by changing the time of action, place of action, or types of activities in locations of federally listed species can be cost- and time-effective if a consultation is avoided. The Proposed Action would not require a Section 7 Consultation.

AFI 32-7064 provides details on how to manage natural resources in such a way as to comply with federal, state, and local laws and regulations. AFI 32-7064 calls for the protection and conservation of state-listed species when not in direct conflict with the military mission. Eglin AFB applies for appropriate permits for actions that may affect state-listed species (such as monitoring and handling of gopher tortoise), and also cooperates with the Florida Fish and Wildlife Conservation Commission (FWC) to further the goals of the Florida State Wildlife Conservation Strategy.

The Migratory Bird Treaty Act (16 USC 703 *et seq*) was enacted to ensure the protection of shared migratory bird resources. The Migratory Bird Treaty Act prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit. The Migratory Bird Treaty Act protects a total of 836 bird species, 58 of which are currently legally hunted as game birds. The U.S. Fish and Wildlife Service (USFWS) regulations authorize permits for takes of migratory birds for activities such as scientific research, education, and depredation control.

Invasive nonnative species are species introduced from other countries or regions of the U.S. that threaten native plants and animals by altering the composition, structure, and function of native ecosystems. Invasive nonnative species impose large economic costs on natural resource managers, requiring intensive and extensive management to prevent undesirable ecosystem changes. Recognizing the ecological and economic impacts of invasive species, the President of the U.S. issued EO 13112, to manage and control the spread of invasive species and restore affected native conditions.

1.7.5 Cultural Resources

Attention to cultural resources is important to Eglin AFB for its required efforts to comply with a host of federal laws, regulations, and EOs. Both DoD Instruction 4715.3, *Environmental Conservation Program*, and AFI 32-7065, *Cultural Resources Management*, outline and specify procedures for Air Force cultural resource management programs. At Eglin AFB, the Integrated Cultural Resource Management Plan specifies Eglin-specific policies and procedures regarding the treatment of cultural resources (U.S. Air Force, 2004).

Under the National Historic Preservation Act (NHPA), the Air Force is required to consider the effects of its undertakings on historic properties listed or eligible for listing in the National Register of Historic Places (NRHP), and to consult with interested parties regarding potential impacts. The NRHP is the nation's formal listing of cultural resources considered worthy of preservation. It is administered by the National Park Service and is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. Properties listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

The regulatory NHPA Section 106 compliance process consists of four primary stages. These include: initiation of the Section 106 process (36 CFR 800.3); identification of historic properties (36 CFR 800.4), which includes identifying historic properties potentially affected by undertakings; assessment of adverse effects (36 CFR 800.5), which determines whether the undertaking will affect historic properties and if effects to those properties might be adverse; and resolution of adverse effects (36 CFR 800.6) between affected and consulting parties such as the State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, Indian tribes and interested individuals. Additional stipulations are provided for in the NHPA should a failure to resolve adverse effects occur during this process (36 CFR 800.7).

1.7.6 Transportation

The Florida Transportation Uniform Standard Code, 9J-2.045, FAC, gives the Florida Department of Community Affairs (DCA) Division of Community Planning guidance on how they will evaluate transportation facility issues in the review of applications for local government developer orders and Developments of Regional Impacts. The Transportation Uniform Standard Code implements, in part, Chapter 380 of the Florida Statutes, *Land and Water Management*. Chapter 380 is one of the 23 statutes in the state of Florida that compose the Florida Coastal Management Program and it is administered by the Florida DCA. The purpose of Chapter 380 is to facilitate orderly and well-planned development, by authorizing the state land planning agency

to establish land management policies to guide local decisions relating to growth and development. Eglin AFB has submitted a federal consistency review under the CZMA for the Proposed Action, which was reviewed by the Florida DCA, who concurred with Eglin AFB's determination.

1.7.7 Land Use

There are no specific regulations associated with land use activities other than Air Force standards. Guidelines were generally adopted from publications such as FICUN's Guidelines for Considering Noise in Land-Use Planning and Control and the U.S. Department of Transportation (USDOT) publication, *Standard Land Use Coding Manual*. Air Force Manual 91-201, *Explosives Safety Standards*, provides guidelines for Explosive Safety Quantity Distance (ESQD) clearance zones.

1.7.8 Socioeconomics

There are no specific regulations that govern socioeconomic aspects such as employment, population, or public services.

1.7.9 Solid Waste Management Laws and Regulations

The Florida statutes and regulations governing solid waste management include:

- Florida Solid and Hazardous Waste Management Act (Florida Statutes 29 Chapter 403): Requires that counties establish and operate solid waste disposal facilities and that each county implement a recycling program to achieve reduction in the levels of solid waste disposed.
- Florida Resource Recovery and Management Regulations (FAC 67.2): Establishes local resource recovery and management programs and regulates the collection, transport, storage, separation, processing, recycling, and disposal of solid wastes.
- Florida Solid Waste Disposal Facility Regulations (FAC 62-701): Establishes regulations for the construction, operation, and closure of solid waste facilities including landfills.
- The regulations governing solid waste disposal in Florida provide for three categories of landfills: Class I, Class II, and Class III. The permitting requirements for Class I and Class II landfills are the same. Class I and Class II landfills are differentiated based upon size, with Class II landfills being smaller than Class I. Class III landfills are landfills limited to the disposal of construction and demolition (C&D) debris or other inert wastes that are generally considered to be nonhazardous in nature or not water soluble. Solid wastes acceptable for disposal at a Class III landfill are limited to materials (concrete, wood, plastic, glass, etc.) that are not expected to produce leachate when disposed.
- Air Force regulatory requirements for the management of solid wastes are established by the AFRPD 32-70, *Environmental Quality*. This Directive requires compliance with applicable federal, state, and local environmental laws and standards. For solid waste, AFRPD 32-70 is implemented by AFI 32-7042, *Solid and Hazardous Waste Compliance*.

- AFI 32-7042 requires that each installation have a solid waste management program that includes a solid waste management plan to address handling, storage, collection, disposal, and reporting of solid waste. AFI 32-7080, *Pollution Prevention Program*, contains the solid waste requirement for preventing pollution through source reduction, resource recovery, and recycling.

1.7.10 Hazardous Waste Management Laws and Regulations

Hazardous wastes must meet either a hazardous characteristic of ignitability, corrosivity, toxicity, or reactivity under 40 CFR 261, or be listed as a waste under 40 CFR 261.

1.7.11 Summary of Required Permits and Regulatory Coordination

In summary, the proponent will be responsible for coordinating with Eglin AFB to obtain or revise the following permits or regulatory obligations:

- Eglin AFB must revise their Title V permit to include all boilers and emergency generators, if any, and fuel storage installed at the GCTS facilities.
- A design and construction permit must be obtained in accordance with Rule 62-25 FAC.
- According to Rule 62-25, the proponent must ensure that a Notice of Intent to Use the General Permit for New Stormwater Discharge Facility Construction be submitted prior to project initiation.
- This construction project requires consistency with Florida's CZMA. FDEP has reviewed and concurred with the Air Force submitted negative determination (Appendix A).

1.8 DOCUMENT ORGANIZATION

This EA contains eight chapters. Chapter 1 contains a statement of the purpose and need for the action, and the location of the Proposed Action. It also describes the decision to be made and summarizes the scope of the environmental review. Chapter 2 contains a brief introduction, describes the history of the formulation of alternatives, describes the alternatives eliminated from further consideration, provides a detailed description of the Proposed Action, lists the No Action Alternative, summarizes other actions anticipated in the Region of Influence (ROI), and provides a comparison matrix of environmental effects for all alternatives. This section also identifies the preferred alternative and discusses regulatory requirements and/or best management practices (BMPs), as required. Chapter 3 describes, in general, the current conditions of the resources that the Proposed Action and Alternative Action could affect. Chapter 4 provides an analysis of the environmental consequences of the Proposed Action, Alternative Actions and the No Action Alternative. Chapter 5 provides an analysis of cumulative impacts and irretrievable commitment of resources. Chapter 6 identifies management practices for minimizing potential impacts. Chapter 7 lists persons and agencies consulted in the preparation of this EA. Chapter 8 lists publications cited in this report.

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 DESCRIPTION OF THE PROPOSED ACTION: TRAINING AT THE TRIANGLE AND MILCON CONSTRUCTION AT BASE TANGO

The GCTS proposes to relocate the training activities of the GCTS Complex from Base Tango at Eglin AFB to an adjacent parcel of land referred to as the Triangle (Figure 2-1). Relocation of training is the Proposed Action, and is also the Preferred Alternative.

The Proposed Action would also include the construction of support facilities and infrastructure at Base Tango. No permanent facilities would be erected in the Triangle, though the proponent would construct training props and building mock-ups to enable realistic training. The notional layout of the training area, as it might be situated within the Triangle, is shown in Figure 2-2. The Triangle is 332 acres in size, approximately 45 acres of which would be cleared to create various training areas. The Triangle is located approximately one half mile from Base Tango.

The GCTS would continue to accomplish their training using a modular approach. Instruction training modules would meet specific training requirements and would be combined to form course curricula. Modules may be added, deleted, and modified as needed without altering an entire curriculum. Typically, a core combats skills training curriculum is modified to fulfill mission-specific training needs. For example, trainees enroute to a North Atlantic Treaty Organization (NATO) peacekeeping mission would have the same core training but use different modules from trainees enroute to a humanitarian relief mission. The following sections discuss the locations, throughput capabilities and schedule, field training activities, and construction requirements associated with the Proposed Action.

2.1.1 Throughput Capabilities and Schedule

There are currently two courses, a 16-day course with classroom and field training, and a 7-day course with classroom and field training (AFMC, 2008). The GCTS is equipped to accommodate 10 classes per year with 150 students attending each class (AFMC, 2008). The total maximum annual throughput for students is 1,500. Approximately 10 to 15 instructors would supervise trainees during field training.

2.1.2 Field Training Activities

Areas of natural terrain with a thick understory and layers of heavy forest floor litter are important training components. Supervised field training would be conducted day and night; stealth and detection equipment would be used for night operations. General transportation vehicles used would include:

- M-1083 5-Ton Truck
- M-998 High Mobility Multi-Wheeled Vehicle (HMMWV)
- M-1078 2½-Ton Cargo Truck

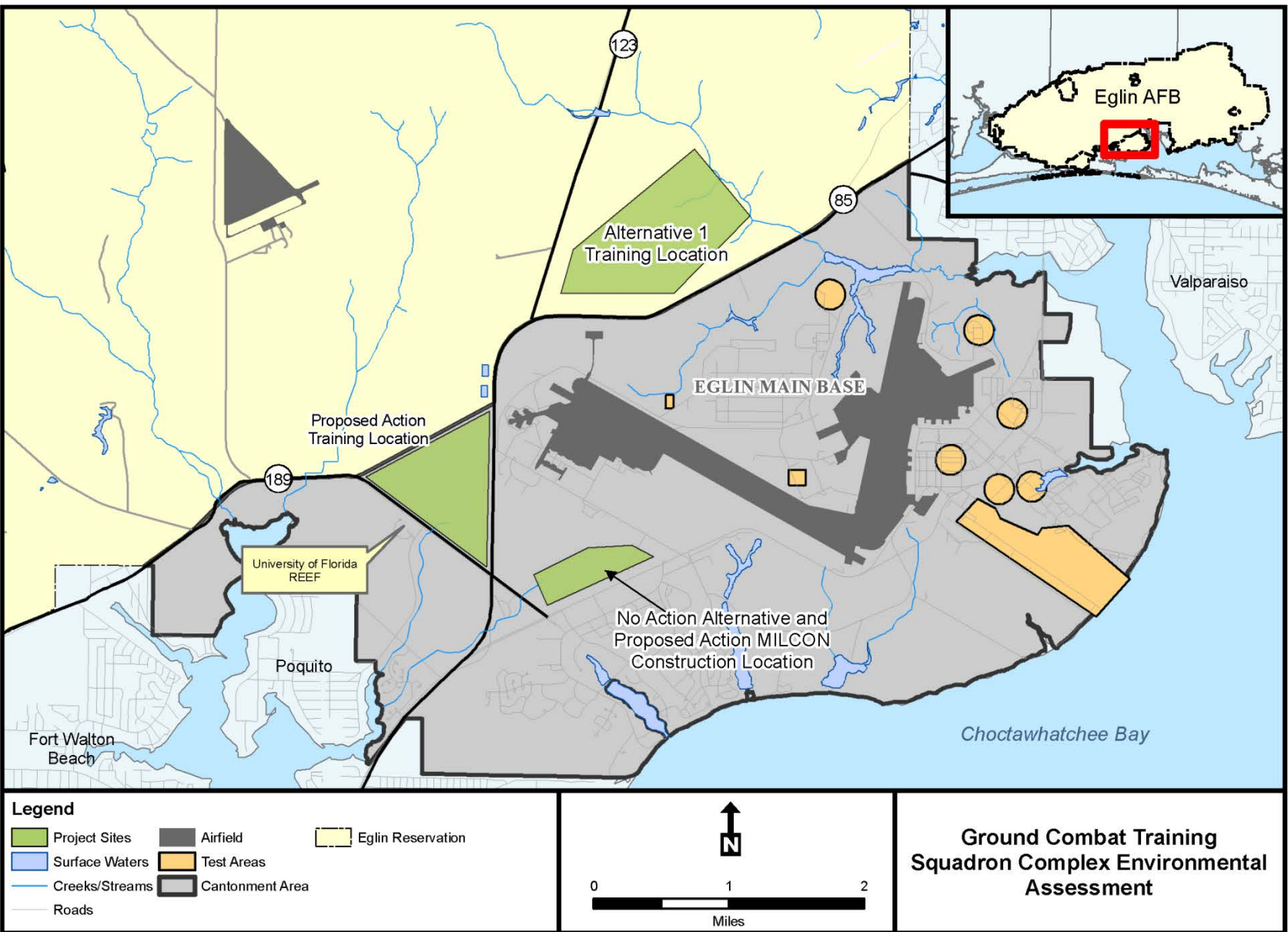


Figure 2-1. Proposed Action and Alternative Locations

- Trailer, Truck, Water 400GL
- M-105 Trailer Cargo
- Six Pax 4 × 4
- Truck Utility Four Door 4 × 4
- High Mobility Light Trailer

Assembly and Convoy Operations

Assembly involves the gathering and organization of vehicles, personnel and equipment before conveying to the field training bivouac area. The assembly mission activity is excluded from analysis since it would be performed at an existing parking lot location near the support facilities. No equipment or personnel would be assembled on natural ground areas, which substantially reduces environmental impact potentials. A convoy is a group of vehicles organized for controlled and orderly movement, with or without escort protection, over the same route at the same time, and under one commander. Convoy travel distance between Base Tango and the Triangle is expected to be less than two miles one way, depending on the route traveled.

Bivouacking

Bivouac sites are used to set up temporary shelters and facilities that provide meals and water, parking for vehicle maintenance and protection and setting up equipment used in conjunction with the training mission. Features of bivouacs include access roads, parking areas, and campsites. Force protection berms one- to two-feet high are sometimes established around vehicles, equipment, or shelters. The bivouac is frequently located where vegetation can provide tactical concealment.

Patrolling

A patrol is a detachment of ground forces sent out by a larger unit to gather information or carry out destructive, harassing, mopping up, or security missions. There are two types of patrols: reconnaissance and combat.

The reconnaissance patrol is used to gather information on the enemy, terrain, and resources. Reconnaissance is a mission undertaken either to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area (also called recon). These patrols are normally small, lightly armed and generally only fight to disengage. If reconnaissance patrols locate the enemy, combat patrols are dispatched. All-terrain vehicles (ATVs) would be used for reconnaissance and patrols over the entire training area.

Combat patrols are conducted to destroy or capture enemy troops or equipment, destroy installations, facilities or key points, or harass enemy forces through raids and ambushes. They also provide security for larger units. Common elements of patrols include headquarters, aid and litter team, prisoner team, surveillance team, enroute recorder, compass person, and pace person.

Patrol movements are generally characterized as fan patrols that consist of a series of loops covering an area from a central location, and a box patrol that skirts an area boundary normally delineated by topographic features.

For the Proposed Action, a reconnaissance patrol would normally consist of two teams of 4 to 8 troops, and a combat patrol would consist of 13 to 88 troops. A training supervisor would accompany each team. Reconnaissance patrols would primarily be conducted at night using night vision equipment and listening devices. During daylight, teams would try to remain secluded. In some instances, teams would be allowed to stay overnight at their positions; however, no campfires would be allowed. Following engagement or disengagement activities, expended ammunition casings and smoke grenades would be recovered.

2.1.3 Base Defense Operations

Base defense consists of local military measures, both routine and emergency, required to nullify or reduce the effectiveness of enemy attacks on, or sabotage of, a base, to ensure that base facilities are available at maximum capacity to U.S. forces. Ground defense positions are natural or constructed fortifications that provide tactical boundary primary firing positions. These 12 crew-served positions would be 3-feet wide, 6-feet long and 3- to 5-feet deep. Each position would typically be manned by two troops armed with an M16 and M60. Defense positions would be engaged by enemy reconnaissance teams to pinpoint their number and location. Defense positions would be refilled during move-out operations.

2.1.4 Vehicle Escorts

An escort comprises combat forces of various types provided to protect other forces against enemy attack. The vehicle escort movement of personnel and/or supplies is the primary role of security police in motor movements. Prior to escort training activities, an actual or map route reconnaissance is conducted. Escorts will be armed with M16s and an M60. The types of vehicles (Figure 2-3) that could be used by the vehicle escorts are:

- M35, 2.5-Ton, 6 × 6 Utility Truck
- HMMWV
- M1008, 0.5-Ton Tactical Cargo Vehicle
- M1009, Tactical Cargo Truck
- M923/925, 5-Ton, 6 × 6 Utility Truck

Due to terrain and history of damage potential in a full equipment-training environment, M-35 and 5-ton transport with troop seating and canvas weather covers would be preferred for transport in and around the loose sandy terrain anticipated in field training areas. Based on vehicle use rates and types, maintenance would be performed on-site, since vehicle maintenance delay could halt training.

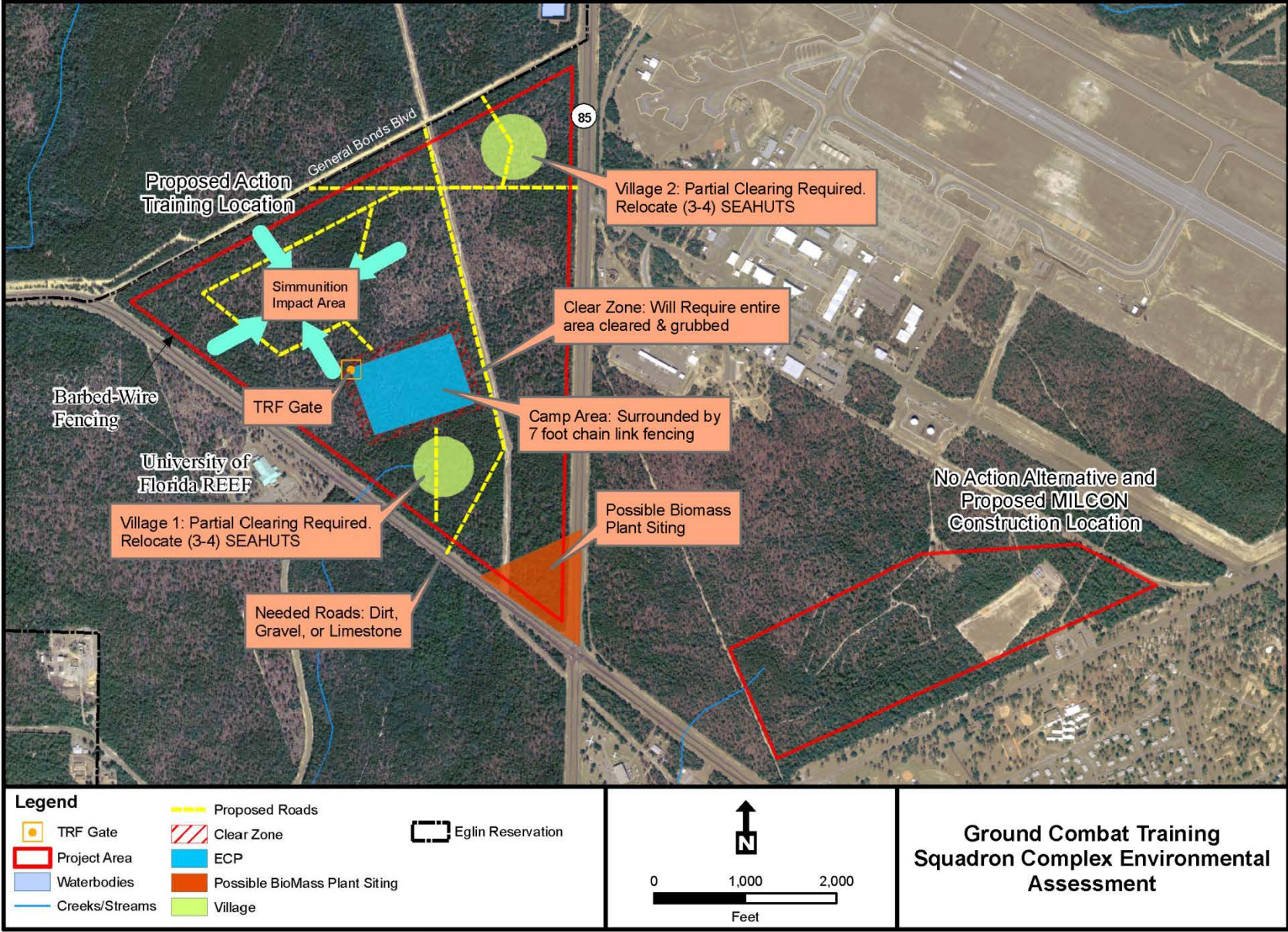


Figure 2-2. Notional Layout of Training Structures and Areas in the Triangle



Figure 2-3. GCTS Complex Escort Vehicles

The combinations and number of vehicles used during a training escort depend on the size of the convoy, the number of personnel required, the threat being addressed and the weapons being utilized by the escort team. Ideally, four escort vehicles are used during a training mission. VIP escorts typically consist of at least two vehicles.

During a disabled vehicle exercise, the vehicle(s) would pull off the road and troops would take defensive positions, whereas during an ambush, the vehicles could remain on the roadway and troops would return fire and exercise disengagement measures in anticipation of a probable air strike. Off-road wheel tracking created by escort vehicles during training would be limited to areas immediately adjacent to the roadway. Two to three vehicle escort exercises would be performed during the training period.

2.1.5 Ordnance Expenditures

The types and estimated amounts of munitions expended during patrolling, vehicle escorts, and/or manning ground defense positions are listed in Table 2-1. The number and types of blank ammunition used are also listed in Table 2-1. No live ammunition would be expended during the proposed GCTS Complex training activities.

Table 2-1. Estimated GCTS Complex Training Mission Expenditures

Munition Type	Expenditures	
	During Field Training Session	Rounds Expended Yearly
M4/M16 5.56 Blanks	19,600	196,000
M-249 5.56 Blanks	8,800	88,000
M-240 7.62 Blanks	4,400	44,000
Smoke Grenades	100	1000
Ground Burst Simulators	60	600
Flare Surface Trip	30	300

Source: AMFC, 2008

Smoke grenades would be used by patrols and vehicle escort teams during disengagement activities. Two battlefield sound simulators would be used to simulate mortar and artillery fire and high explosive demolition for combat conditioning. The device operates on the oxygen-propane principle where gases are metered through solenoid valves with a timing device initiating a spark in the gas-filled chamber to cause the explosion. It can be fired in a single shot or a sequence of 6 shots at 10-second intervals. A trigger switch is used to fire the device from a remote location. During normal firing, the device is safe at a distance of 10 feet.

Two pits, 4-feet deep and 4-feet square, are required. One pit is used for the explosion chamber and the other pit is for the oxygen and propane cylinders and the timing box assembly. The pits are separated by at least 1 foot of earth and reinforced by 4- × 4-inch corner posts with 2- × 6-inch sideboards to prevent pit wall collapse. To minimize the risk of fire and ensure immediate fire response, all battlefield simulators, trip flares, and smoke grenades are either emplaced in open/controlled areas or closely monitored. The GCTS currently has fire extinguishers distributed throughout its training area and would do the same for the Triangle training area. The GCTS conducts training in accordance with AAC safety guidance and a squadron Operating Instruction that dictates fire safety.

No firing of small arms, smoke grenades, or pyrotechnics within or into wetlands or into surface waters would occur. Debris materials from these expenditures would be collected and properly recycled or disposed.

2.1.6 GCTS Complex Features and Construction Requirements

Various levels of land disturbance construction are required to improve access, establish permanent facilities, and create on-site training structures. Permanent garrison and expeditionary field camps are required and roads must be constructed or upgraded to ensure access and facilitate a condition amenable to field training scenarios. Permanent features such as Military Operations on Urban Terrain (MOUT) village, garrison, and entry control point structures are required to instill realism into training modules. The proposed GCTS Complex requirements are discussed in the following sections.

Garrison Facility

A garrison includes all the units assigned to a base or area for defense, development, operation, and maintenance of facilities. The garrison compound would occupy approximately 10 acres and

create 42,291 ft² (3,929 m²) of impervious surface. The garrison area would include administrative offices, classrooms, barracks, weapons cleaning pavilion, warehouse and fuel storage tanks. All utilities, site improvements, and pavements are included in this area estimate. In addition, the Air Force would demolish facilities totaling 27,965 ft² (2,598 m²). Per unified facilities criteria, facilities would comply with DoD force protection requirements.

Expeditionary Field Camp

An expeditionary force is an armed force organized to accomplish a specific objective in a foreign country. The expeditionary field camp (EFC) bivouac consists of hardback tents, field chow hall, fuel point, latrines, and showers normally located in proximity to the field airstrip, MOUT area and austere training environment. Mobile communications and water source would be used. Vegetation at the selected locations would only be partly thinned to maintain concealment.

MOUT Village

MOUT are operations planned and conducted in one or more urban areas. The urban area is a topographical complex where manmade construction or high population densities are the dominant features. The urban battle space includes urban airspace, buildings, street level surface and subsurface (sewers, tunnels, and/or subways) features. MOUT training is conducted within small city or village re-creations of an urban battle space (Figure 2-4).

Prisoner of War (POW) Camp

The camp would be a 1-acre area surrounded by perimeter wire (Figure 2-5). No concrete pads or other impervious surface features would be required. No impervious surfaces would be created by POW camp construction; however, land clearing would be required.

Entry Control Point

A mock-up of an entry control point (ECP) requires the construction of an access road, vehicle undercarriage examination pit and pop-up road barriers. The examination pit is approximately 25-feet long, 5-feet wide, and 7-feet deep. The floor of the pit is lined with gravel, and the pit walls are supported with wood framing. The pop-up barrier is either a hydraulic or manually operated mechanism. The ECP access road is U shaped, connects to an existing road, and is surfaced with gravel or other materials. The ECP area would also be used for checkpoint operations, explosive threats, portable sensors and alarms, barriers, and obstacles and wire. Construction of the control entry facility would create approximately 1.3 acres of impervious surface.

2.2 ALTERNATIVE 1: NORTHEAST OF THE TRIANGLE

Northeast of the Triangle is an area 521 acres in size, which is sufficiently large to accommodate GCTS training. The layout and size of training features within this area would be the same as that for the Proposed Action. This area is identified as Alternative 1. Travel distance between Base Tango and the Alternative 1 location is between three and four miles.



Figure 2-4. Photo Illustrations of MOUT Training



Figure 2-5. Example of Wire Configuration Used for a POW Camp Perimeter

2.3 NO ACTION: REMAIN AT BASE TANGO

Under the No Action Alternative, the AFMC GCTS Complex training area would not be relocated to the Triangle, and facilities would remain at their current location and in their current substandard state. There would be no new construction under the No Action Alternative. Classroom instruction and field training exercises are currently held outside at Base Tango.

Presently, there is 0.33 mile of road within the proposed Base Tango boundary. The vegetation in the area is longleaf pine/scrub oak except for a 15-acre cleared training area. The cleared training area is maintained to native short grass conditions. A latrine/shower facility 800 ft² in area is located at the southeast corner of the MOUT facility. Water and generators are transported to the site during training. The area is also used for patrolling and field reconnaissance.

This alternative is not a viable alternative since it is not in accordance with the Eglin Base Master Plan. There is not enough room at this site for GCTS facilities and training areas. The use of Base Tango by the GCTS for training has always been a temporary solution, with the recognition that a more permanent location would have to be found.

2.4 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

2.4.1 Training North of and Adjacent to the Triangle

This location was eliminated due to the presence of wetlands running through the north part of the site (Figure 2-6). To eliminate any potential for impacts to wetlands, this alternative was dismissed.

2.4.2 Training in an Area Northwest of the Triangle

Northwest of the Triangle is an area 377 acres in size, which is sufficiently large to accommodate GCTS training. However, there is a conflict with the Air Force Special Operations Skeet Range, which is slated to occupy this location.

2.4.3 Alternatives Located within the Eglin Military Complex Interstitial Areas

Over the last several years, the Air Force has evaluated several areas within the Eglin Military Complex but each was dismissed from consideration due to conflicts with other future missions, location away from Eglin Main Base, and the need to build or extend supporting infrastructure such as roads or utilities, and cost. As previously discussed in Section 1.3, an EA was completed evaluating an area south of Test Area D-51 for training, but UXO removal costs proved cost prohibitive and the training action as described in the EA never resulted (U.S. Air Force, 2003). The areas considered but dismissed for analysis in this or previous EAs are shown in Figure 2-6.

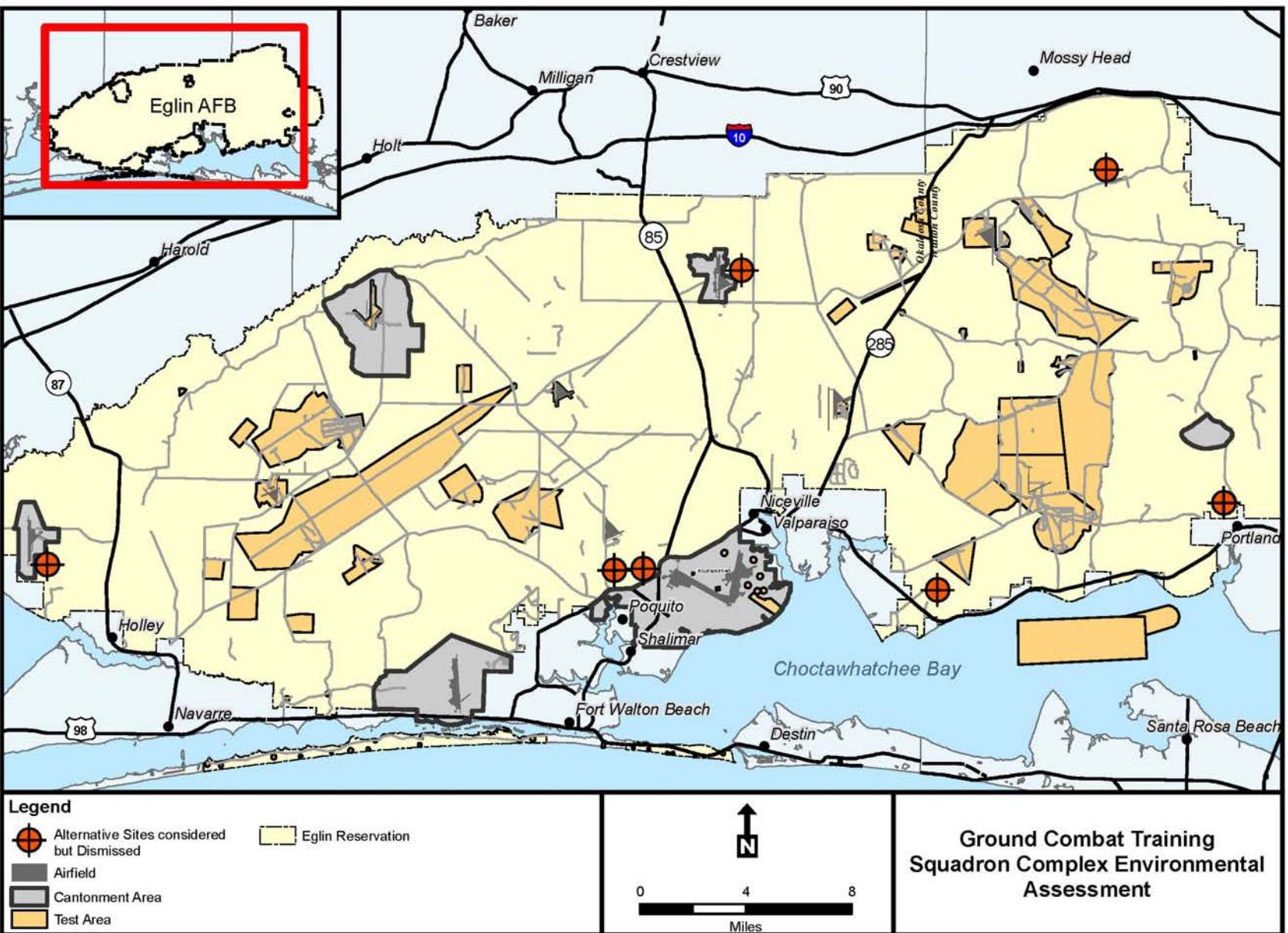


Figure 2-6. Alternative Locations Considered But Dismissed

This page is intentionally blank.

3. AFFECTED ENVIRONMENT

The affected environment is comprised of Base Tango and the Triangle on Eglin Main and the Alternative 1 location northeast of the Triangle on the Eglin AFB range. This section describes the physical, biological, and anthropogenic features at these locations that may potentially be impacted by the Proposed Action and alternative.

Section 3.1 describes the current air quality conditions at Eglin Main. Section 1.1 describes water resources potentially affected by the action. Section 3.3 describes current noise generated from activities at Eglin AFB within the areas of the proposed and alternative actions. Section 3.4 describes biological resources such as habitats, wildlife, and protected species that may occur at the Proposed Action and alternative sites. Section 3.5 discusses recreational activities presently occurring at the Triangle and Base Tango. Section 3.6 discusses anthropogenic features including historic and prehistoric cultural resources. Section 3.7 discusses the existing traffic conditions near the Triangle.

3.1 AIR QUALITY

3.1.1 Definition of the Resource

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The levels of pollutants are generally expressed on a concentration basis in units of parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

The baseline standards for pollutant concentrations are the National Ambient Air Quality Standards (NAAQS) and state air quality standards. These standards represent the maximum allowable atmospheric concentration that may occur and still protect public health and welfare (Table 3-1). Based on measured ambient air pollutant concentrations, the U.S. Environmental Protection Agency (USEPA) designates whether areas of the U.S. meet the NAAQS. Those areas demonstrating compliance with the NAAQS are considered “attainment” areas, while those that are not are known as “nonattainment”. Those areas that cannot be classified on the basis of available information for a particular pollutant are “unclassifiable” and are treated as attainment areas until proven otherwise.

Table 3-1. National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour ⁽¹⁾	None	
	35 ppm (40 mg/m^3)	1-hour ⁽¹⁾		
Lead	0.15 $\mu\text{g}/\text{m}^3$ ⁽²⁾	Rolling 3-Month Average	Same as Primary	
	1.5 $\mu\text{g}/\text{m}^3$	Quarterly Average	Same as Primary	

Table 3-1. National Ambient Air Quality Standards, Cont'd

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Nitrogen Dioxide	0.053 ppm (100 $\mu\text{g}/\text{m}^3$)	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM ₁₀)	150 $\mu\text{g}/\text{m}^3$	24-hour ⁽³⁾	Same as Primary	
Particulate Matter (PM _{2.5})	15.0 $\mu\text{g}/\text{m}^3$	Annual ⁽⁴⁾ (Arithmetic Mean)	Same as Primary	
	35 $\mu\text{g}/\text{m}^3$	24-hour ⁽⁵⁾	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour ⁽⁶⁾	Same as Primary	
	0.08 ppm (1997 std)	8-hour ⁽⁷⁾	Same as Primary	
	0.12 ppm	1-hour ⁽⁸⁾ (Applies only in limited areas)	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	3-hour ⁽¹⁾
	0.14 ppm	24-hour ⁽¹⁾		

Source: USEPA, 2009a

$\mu\text{g}/\text{m}^3$ = microgram per cubic meter; mg/m^3 = milligrams per cubic meter; PM₁₀ = particulate matter with a diameter of less than or equal to 10 microns; PM_{2.5} = particulate matter with a diameter of less than or equal to 2.5 microns; ppm = parts per million; std = standard

⁽¹⁾ Not to be exceeded more than once per year.

⁽²⁾ Final rule signed October 15, 2008.

⁽³⁾ Not to be exceeded more than once per year on average over 3 years.

⁽⁴⁾ To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 $\mu\text{g}/\text{m}^3$.

⁽⁵⁾ To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 $\mu\text{g}/\text{m}^3$ (effective December 17, 2006).

⁽⁶⁾ To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008)

⁽⁷⁾ (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

⁽⁸⁾ (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤ 1 .

(b) As of June 15, 2005 USEPA revoked the 1-hour ozone standard in all areas except the 8-hour ozone nonattainment Early Action Compact (EAC) Areas.

3.1.2 Existing Condition

For this air quality analysis, the ROI is Okaloosa County.

Baseline Emissions

The FDEP currently operates one ozone monitor in Okaloosa County, located at 720 Lovejoy Road in Fort Walton Beach. This monitor began monitoring ozone levels on December 4, 2008 (FDEP, 2009). Okaloosa County is classified as an attainment area, as all counties within Florida are classified as attainment areas for the NAAQS (USEPA, 2009b).

An air emissions inventory qualitatively and quantitatively describes the amount of emissions from a facility or within an area. Emissions inventories are designed to locate pollution sources, define the type and size of the sources, characterize emissions from each source, and estimate

total mass emissions generated over a period of time, normally a year. These annual rates are typically represented in tons per year. Inventory data establishes relative contributions to air pollution concerns by classifying sources and determining the adequacy as well as the necessity of air regulations. Accurate inventories are imperative for the development of appropriate air quality regulatory policy.

Table 3-2 presents the USEPA's 2002 National Emissions Inventory (NEI) data for Okaloosa County (USEPA, 2002). The county data includes emissions data from point sources, area sources, and mobile sources. *Point sources* are stationary sources that can be identified by name and location. *Area sources* are point sources whose emissions are too small to track individually, such as a home or small office building or a diffuse stationary source, such as wildfires or agricultural tilling. *Mobile sources* are any kind of vehicle or equipment with gasoline or diesel engine, an airplane, or a ship. Two types of mobile sources are considered: on-road and nonroad. On-road mobile sources consist of vehicles such as cars, light trucks, heavy trucks, buses, engines, and motorcycles. Nonroad sources are aircraft, locomotives, diesel and gasoline boats and ships, personal watercraft, lawn and garden equipment, agricultural and construction equipment, and recreational vehicles (USEPA, 2005).

Table 3-2. Baseline Emissions Inventory for Okaloosa County

Source Type	Emissions (tons/year)				
	CO	NO _x	PM	SO _x	VOCs
Okaloosa County					
Area Sources	1,867	281	8,397	462	4,527
Non-Road Mobile	16,150	1,099	162	109	1,897
On-Road Mobile	45,228	5,703	153	256	3,829
Point Sources	28	49	24	12	79
Total	63,274	7,132	8,736	839	10,333

Source: USEPA, 2002

CO = carbon monoxide; NO_x = nitrogen oxides; PM = particulate matter; SO_x = sulfur oxides; VOCs = volatile organic compounds

Greenhouse Gas

Greenhouse gases are chemical compounds in the Earth's atmosphere that trap heat. Gases exhibiting greenhouse properties come from both natural and man-made sources. Water vapor, carbon dioxide (CO₂), methane, and nitrous oxide are examples of greenhouse gases that have both natural and man-made sources, while other gases such as those used for aerosols are exclusively man-made. In the United States, greenhouse gas emissions come mostly from energy use. These are driven largely by economic growth, fuel used for electricity generation, and weather patterns affecting heating and cooling needs. Energy-related CO₂ emissions resulting principally from petroleum and natural gas represent 81.3 percent of total U.S. man-made greenhouse gas emissions (U.S. Energy Information Administration, 2009).

3.2 WATER RESOURCES

3.2.1 Definition of the Resource

Water resources include ground water, surface waters, wetlands, floodplains and stormwater characteristics of the study area. Figure 3-1 depicts water resources within or near the proposed and alternative locations.

Groundwater

Groundwater is defined by the U.S. Geological Survey (USGS) as “all subsurface water” (USGS, 2004). Subsurface water that is in significant enough amounts to tap via a well are referred to as aquifers. The two aquifers located under Eglin AFB are the Sand and Gravel Aquifer and the Floridan Aquifer. Eglin AFB uses only a small amount of water from the Sand and Gravel Aquifer, but the Floridan Aquifer is used extensively for drinking water. The Floridan Aquifer is located below the Sand and Gravel Aquifer and extends beneath peninsular Florida. The descriptions of the Sand and Gravel Aquifer and Floridan Aquifer given below apply to all of Eglin AFB, and therefore all proposed and alternative actions in this EA.

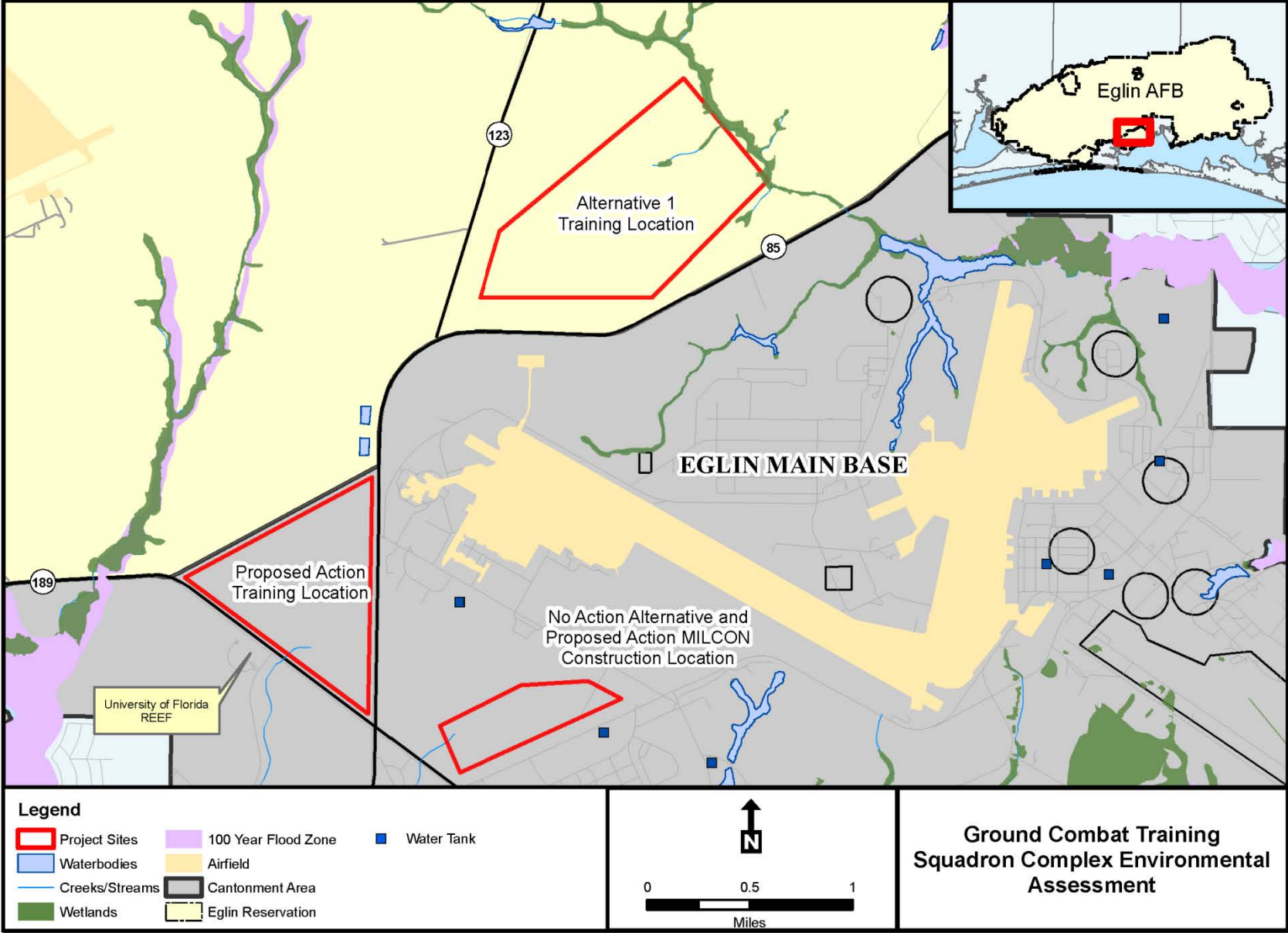


Figure 3-1. Water Resources within or near the Proposed Action or Alternative Locations

Sand and Gravel Aquifer

The Sand and Gravel Aquifer consists of Citronelle formation and marine terrace deposits, which begin at the land surface. Water flows generally south to southeast. Water in the Sand and Gravel Aquifer exists in generally unconfined (a free water surface or water table conditions) and confined (under pressure) conditions (USGS, 1990). The quality of water in the aquifer has been rated good (i.e., meets its intended use) by the FDEP (U.S. Air Force, 1995). Water from this aquifer is not a primary source of domestic or public supply water on Eglin AFB because of the large quantities of higher quality water available from the underlying upper limestone of the Floridan Aquifer (USGS, 1990; Overing et al., 1995).

Floridan Aquifer

The Floridan Aquifer consists of a thick sequence of interbedded limestone and dolomite. Water flow direction is northeast to southwest. Throughout the Eglin Reservation, the Floridan Aquifer exists under confined conditions, bounded above and below by the Pensacola Clay Formation confining bed. This clay layer restricts the downward migration of pollutants and restricts saline water from Choctawhatchee Bay and the Gulf of Mexico from entering the upper limestone layer of the aquifer. The wells on Eglin AFB tap into both the Sand and Gravel and Floridan Aquifers and are used for both potable and nonpotable supply.

Surface Water

Surface waters are susceptible to runoff from land clearing and construction and demolition activities. Surface waters can include bays, bayous, lakes, rivers, streams, ponds and springs.

Wetlands

Wetlands are areas of transition between terrestrial and aquatic systems where the water table is usually at or near the surface. Conversely, these can occur where shallow water covers land (USFWS, 1979). Factors such as morphology, hydrology, water chemistry, soil characteristics and vegetation contribute to the diversity of wetland community types. The term wetlands describe marshes, swamps, bogs and similar areas. Local hydrology and soil saturation largely affects soil formation and development as well as the plant and animal communities found in wetland areas (USEPA, 1995). One of the most important factors in establishing and maintaining wetland processes is wetland hydrology, which is the inflow and outflow of water through a wetland and its interaction with other site characteristics (Mitsch and Gosselink, 2000).

Wetlands are defined in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (USACE, 1987). The majority of jurisdictional wetlands (wetlands that fall under state or federal regulatory authority) in the U.S. are described using the three wetland delineation criteria: hydrophytic vegetation, hydric soils and hydrology (USACE, 1987).

The Coastal Zone

The term coastal zone is defined as coastal waters and adjacent shorelands strongly influenced by each other and in proximity to the several coastal states, and including islands, transitional and inner tidal areas, salt marshes, wetlands and beaches. The entire state of Florida is considered part of the coastal zone and is subject to the CZMA. Some components of the Proposed Action would take place within the jurisdictional concerns of the FDEP and therefore require a consistency determination with respect to Florida's Coastal Zone Management Plan and the CZMA (Appendix I, CZMA Determination).

Stormwater

Stormwater-carried sediment can alter water quality, aquatic habitats, hydrologic characteristics of streams and wetlands, and increase flooding. Land-disturbing activities (such as clearing) and the addition of impermeable surfaces (concrete, asphalt, etc.) would result in increases in stormwater runoff. The effects, however, vary based on the amount of new impervious surface areas, topography, rainfall, soil characteristics and other site conditions. The rate and volume of stormwater runoff has the potential to impact the quality and utility of water resources (FDEP, 2002).

3.2.2 Existing Condition

Proposed Action Location

Triangle Area

The Triangle area is wooded except for an approximate 80-foot wide easement that runs north to south. Also, an unpaved road exists on the north end of the site extending east to west. No impervious surfaces exist on the site. The terrain is relatively flat with very little difference in elevation. No wetlands, surface water, or floodplains occur on the site. The nearest surface water is an unnamed creek located approximately 3,900 feet to the south. The nearest wetland and floodplain area occurs approximately 1,100 feet to the west.

Base Tango Area

The Base Tango area is partially wooded. Development and construction has occurred along Nomad Avenue and around the Eglin AFB main runway resulting in impervious surfaces. The existing facilities total 27,965 ft². The terrain is relatively flat with very little difference in elevation. No wetlands, surface water, or floodplains occur on the site. The nearest surface water is Upper Memorial Lake located approximately 1,900 feet southeast. The nearest wetland is located approximately 2,400 feet to the south. Also, Choctawhatchee Bay is located approximately 6,200 feet southeast.

Alternative 1

The Alternative 1 project area is wooded except for an approximate 280-foot wide utility easement that extends east to west. Approximately 4.5 acres of palustrine wetlands exist on the northeastern portion of the site associated with Tom's Creek. Range Road 628 runs through the

site as well as several unnamed roads. No impervious surfaces exist on the site. The terrain is generally flat with elevation ranging from 25 feet to 100 feet above sea level. The nearest floodplain is located approximately 6,000 feet to the west.

No Action Alternative

The No Action Alternative setting is the same as the Proposed Action (Base Tango area).

3.3 NOISE

3.3.1 Definition of the Resource

Noise is defined as any unwanted sound. Defining characteristics of noise include sound level (amplitude), frequency (pitch), and duration. Each of these characteristics plays a role in determining the intrusiveness and level of impact of the noise on a noise receptor. The term *noise receptor* is used in this document to mean any person, animal, or object that hears or is affected by noise.

Sound levels are measured on a logarithmic decibel (dB) scale, reflecting the relative way in which differences in sound energy levels are perceived. A sound level that is 10 dB higher than another would normally be perceived as twice as loud while a sound level that is 20 dB higher than another would be perceived as 4 times as loud. Under laboratory conditions, a person with normal hearing can detect a change in sound level as small as 1 dB. Under most nonlaboratory conditions, people will notice changes in sound level of approximately 3 dB.

Sound measurement may be further refined through the use of frequency “weighting”. A typical healthy human can detect sounds that range in frequency from about 20 hertz (Hz) to 20,000 Hz (FICON, 1992). However, all sounds throughout this range are not heard equally well. In “A-weighted” measurements, the frequencies in the 1,000 to 4,000 Hz range are emphasized because these are the frequencies to which human hearing is most sensitive. Sound level measurements weighted in this way are termed *A-weighted decibels* (dBA). In the case of sonic booms, blast noise, and other impulsive “booming” noises, sound is felt as well as heard. With these types of noise, overpressure may be considered more annoying than the sound itself. For this reason, impulsive sounds are measured using “C-weighting”, which does not attenuate the lower frequencies to the extent that A-weighting does. Sound level measurements weighted in this way are termed *C-weighted decibels* (dBC). Unless otherwise noted, all sound levels referenced in this EA can be assumed to be A-weighted.

Because both the duration and frequency of noise events also play a role in determining overall noise impact, several metrics are used that account for these factors.

- Sound Exposure Level (SEL) accounts for both the maximum sound level and the length of time a sound lasts. SEL does not directly represent the sound level heard at any given time. Rather, it provides a measure of the total sound exposure for an entire event compressed into one second. This metric is useful for comparing fast-moving and slow-moving aircraft and is a good predictor of several noise impacts including sleep disturbance and speech interference.

- Day-Night Average Sound Level (DNL) represents aircraft noise level averaged over a 24-hour period with a 10 dB penalty to flights occurring between 10:00 PM and 7:00 AM to account for the added intrusiveness of noise during these hours. It is important to recognize that the DNL metric does not represent the noise heard at any single point in time, but rather a weighted average level of noise events that occur over the course of a day. The DNL metric has been endorsed by several federal agencies as being the best descriptor of general noise conditions in the vicinity of airfields (USEPA, 1974; FICUN, 1980).

3.3.2 Existing Condition

The existing noise environment is typical of a military base with sounds such as aircraft overflights, munition detonations on range test areas, and vehicle traffic. Nonmilitary noise from local highways, hunters, and other recreational users may be audible at the Proposed Action locations. Natural sounds include wind, rain, thunder and wildlife.

Aircraft operations at Eglin AFB (including Okaloosa Regional Airport) are the largest contributor to the noise environment around the installation. As discussed in **Section 3.2.1**, noise-sensitive land uses are “normally unacceptable” in areas that exceed a DNL of 65 dBA. Under the proposed Base Closure and Realignment (BRAC) action, a Joint Strike Fighter (JSF) Initial Joint Training Site is being established at Eglin AFB. This will result in an increase in aircraft operations at Eglin AFB. The DNL of 65–80+ dBA noise contours from aircraft operations at Eglin AFB for the JSF Supplemental EIS (SEIS) no action alternative were plotted on an aerial (see **Figure 3.? Noise Contours in Relation to Proposes GCTS Locations**). These noise contours extend over Choctawhatchee Bay to the south, Eglin AFB to the north and northwest, and over the town of Valparaiso to the north. Additional airports in the vicinity of Eglin AFB include the Destin-Fort Walton Beach Airport, which is 7 miles southeast; Hurlburt Field, which is 10 miles west; and Eglin Auxiliary Field 3 (i.e., Duke Field), which is 12 miles north of Eglin AFB airfield. Operations from these airports would contribute slightly to the acoustical environment around Eglin AFB.

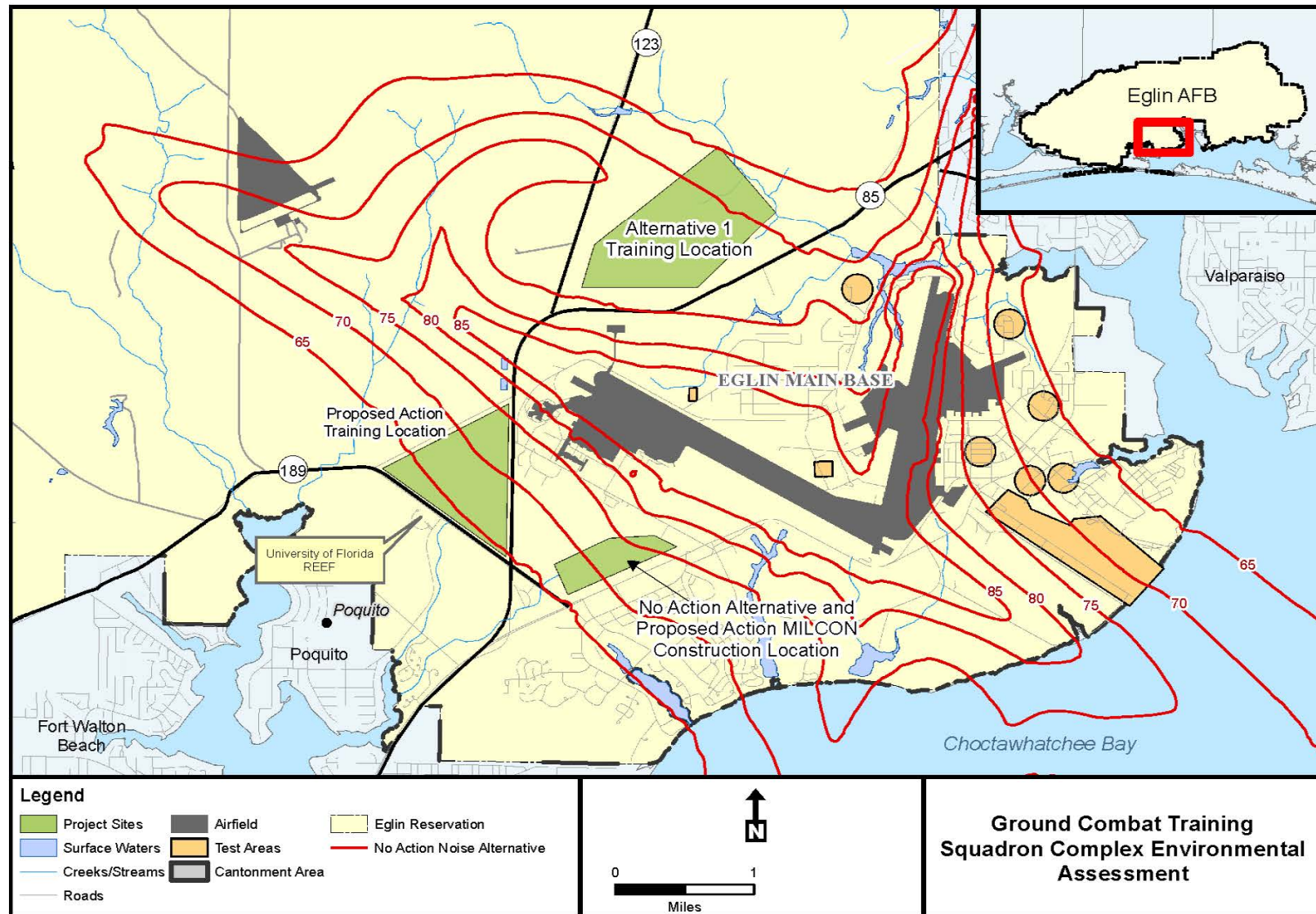


Figure 3.?. Noise Contours in Relation to Proposed GCTS Locations

3.4 BIOLOGICAL RESOURCES

3.4.1 Definition of the Resource

Biological resources include the native and introduced terrestrial and aquatic plants and animals found on and around Eglin AFB. The habitats of Eglin AFB are home to an unusually diverse biological community including several sensitive species and habitats.

3.4.2 Existing Condition

Triangle Area

Of Eglin AFB's major ecological associations, only the Sandhills ecological association is found within the site (Table 3-3 and Figure 3-2). No invasive nonnative plant species have been documented within the site (Eglin GIS, 2007).

Table 3-3. Proposed Project Area Habitats (Acres)

Location	Sandhills	Swamp/Riparian	Open Grassland	Landscaped/ Urban
Triangle Area	332	0	0	0
Base Tango	337	0	0	144

Florida black bears have been sighted near the site (Figure 3-3). The Sandhills habitat which dominates this area is potentially home to gopher tortoises, eastern indigo snakes, and Florida pine snakes. One inactive red-cockaded woodpecker (RCW) tree is located within the site (Figure 3-3).

Proposed Action (Base Tango Area)

Of Eglin AFB's major ecological associations, only the Sandhills and Landscaped/Urban ecological associations are found within the Base Tango location (Table 3-4 and Figure 3-2). No invasive nonnative plant species have been documented within the site (Eglin GIS, 2007). Occasional Florida black bears have been sighted near the site (Figure 3-3). This area is also potential gopher tortoise and indigo snake habitat. Three inactive RCW trees are located within the site and 73 others are located to the south (Figure 3-3).

Alternative 1: Northeast of the Triangle

Of Eglin AFB's major ecological associations, the Sandhills, Open Grassland, and Swamp/Riparian ecological associations are found within the Alternative 1 location (Table 3-4 and Figure 3-2). No invasive nonnative plant species have been documented within the site (Eglin GIS, 2007).

On occasion, Florida black bears have been sighted near the site (Figure 3-3). This area is also potential gopher tortoise and indigo snake habitat. No RCW trees exist within the site (Figure 3-3). A total of 6.8 acres of high quality natural areas exist on the northeast portion of the site.

Also, Tom's Creek is located on the northeast portion and is identified as an Okaloosa darter (*Etheostoma okaloosae*) stream. The Okaloosa darter is a federally endangered species. A total of 2,170 feet of the creek extends onto the site.

Table 3-4. Alternative 1 Area Habitat (Acres)

Location	Sandhills	Swamp/Riparian	Open Grassland	Landscaped/ Urban
Base Tango	337	0	0	144
Alternative 1 Training Area: Northeast of Triangle	462	20	39	0

No Action Alternative

Biological resources within the No Action Alternative setting of Base Tango are the same as those for the Proposed Action and Alternative 1 Military Construction (MILCON) area.

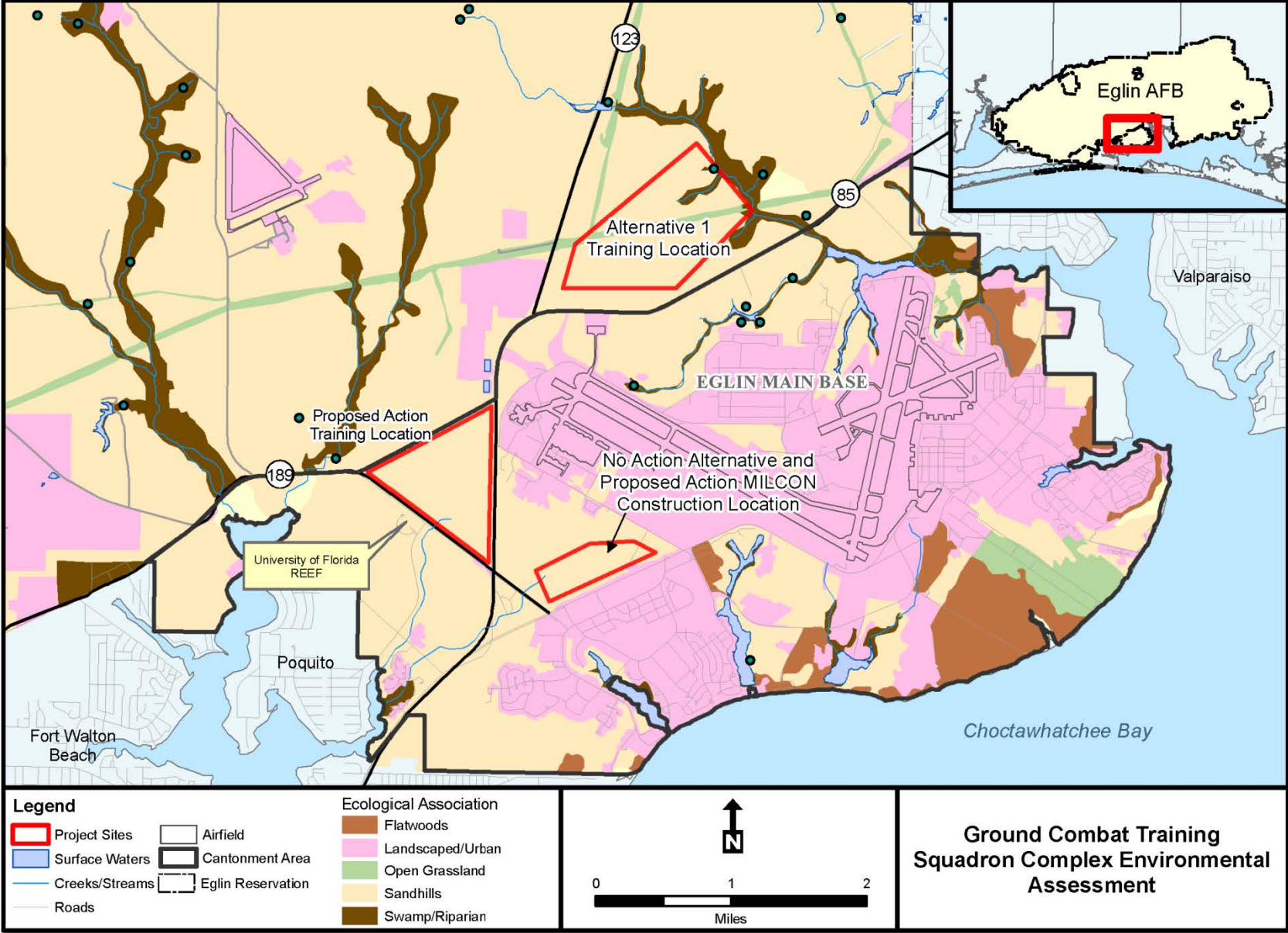


Figure 3-2. Ecological Associations of the Proposed and Alternative Locations

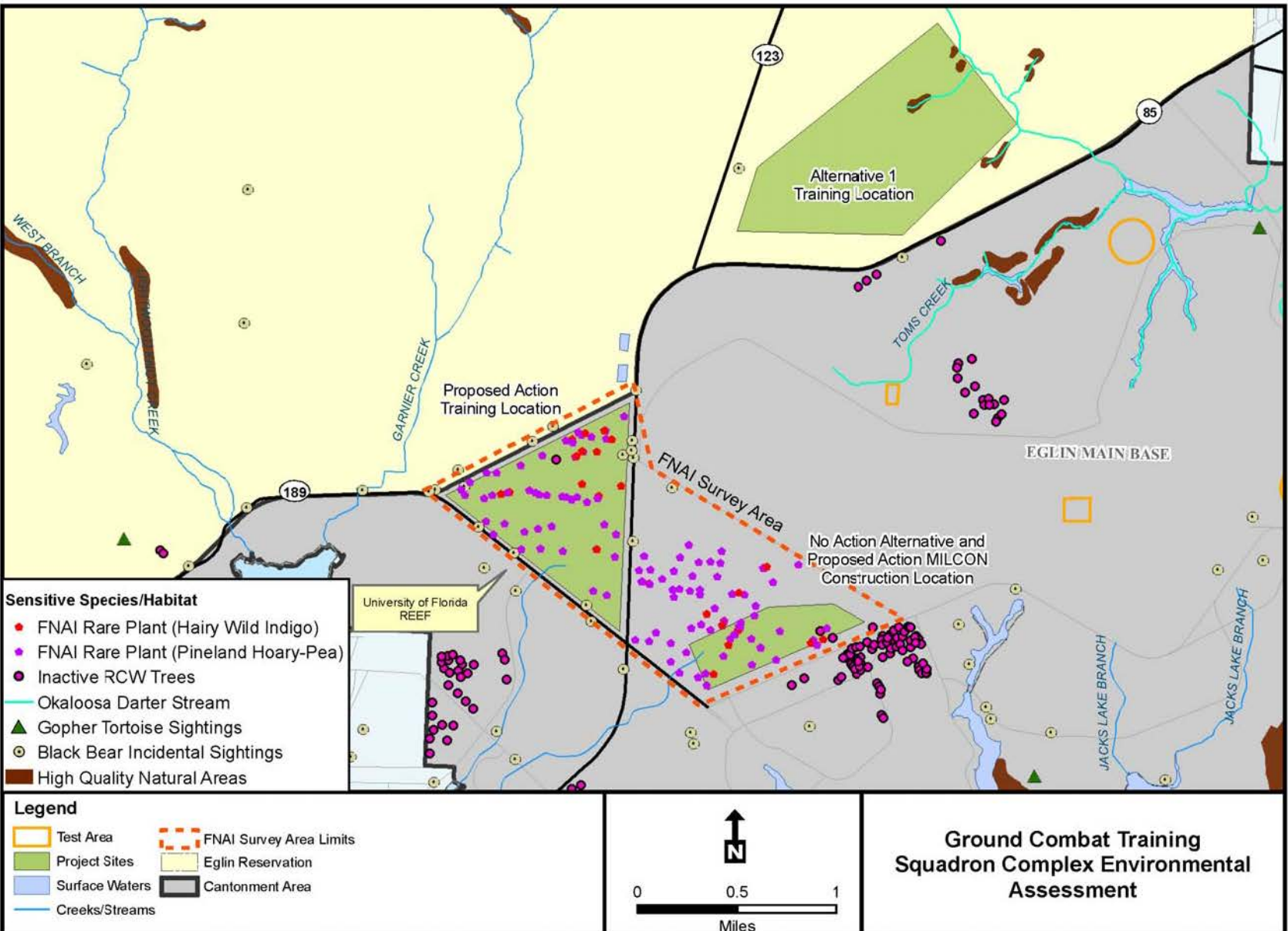


Figure 3-3. Biological Resources within or near the Proposed Action and Alternative Locations

3.5 RECREATION

3.5.1 Definition of the Resource

The Eglin Reservation is a valuable source of outdoor recreation for the surrounding communities and active duty military and civilian personnel. There are approximately 280,000 acres of land open for outdoor recreation (Johnson, 2007). Public recreation on the Eglin Reservation is permitted during daylight hours only, with the exception of approved campsites after sunset. Outdoor activities include hunting, fishing, hiking, and camping, the most popular being hunting and fishing. Numbers on the frequency of use or areas most intensely used are not available (U.S. Air Force, 2007).

There are 15 management units, each having its own regulations associated with seasons, mission activities, and access to the public and DoD-affiliated persons. All persons that engage in outdoor recreational activities are required to adhere to applicable Eglin AFB, federal, and state laws, rules and regulations. General regulations are in place that address prohibited actions; for example, disturbing or removing any government property from the Eglin Reservation is prohibited. Entry into both “closed” areas and “seasonally closed” areas is prohibited unless the Commander of Eglin AFB has granted special permission. Areas designated as “open” are available for all types of outdoor recreation with the exception of hunting (Figure 3-4.). Annual rules, regulations, permits and maps for recreational activities can be obtained from the 96th Civil Engineer Group, Natural Resources Section (96 CEG/CEVSN) at Eglin AFB (U.S. Air Force, 2007).

Recreational, hunting, and fishing permits are required for anyone 16 years or older entering Eglin AFB. Any person under the age of 16 is required to purchase a permit only if they are hunting. Those persons hunting, fishing, or in possession of equipment used for these activities must have applicable state and federal licenses, stamps, and permits (U.S. Air Force, 2003b). Table 3-5 shows the number of recreation, hunting, fishing, forest products, and camping permits that have been issued for Eglin AFB between Fiscal Year (FY)1995 and FY2004.

Table 3-5. Recreational Permits Issued for Eglin AFB between FY2005 and FY2007

Type of Permit	2005	2006	2007
Hunting	4,997	5,309	5,466
Fishing	3,629	4,317	4,305
Recreation	5,615	5,904	5,883
Forest Product	268	400	553
Camping*	625	592	612
Total	15,134	16,522	16,819
Grand Total	48,475		

Source: Johnson, 2007

FY = fiscal year

*Numbers do not include permits from using the Florida National Scenic Trail/Camping Souvenir.

Hunting

Hunting is allowed in designated areas during open hunting season. Trapping of certain species is also legal, but the use or possession of steel traps is prohibited. The hunting or trapping of

threatened and endangered species is prohibited. There are 180,000 acres open to dog hunting and 90,000 acres open to still hunting, where dog hunting is not allowed (U.S. Air Force, 2007). Three hunting seasons (archery, general gun and late primitive weapon) are established on Eglin AFB (Table 3-6).

Table 3-6. Hunting Seasons on Eglin AFB in FY2008

Activity	Season
Hunting	
Spring turkey	15 Mar-20 Apr
Early Small Game*	12 Nov-24 Feb *MU 6
Late Small Game	2-18 Jan
Varmint/Predator*	15 May-15 Jun *MU 12 only
Trapping	1 Dec-1 Mar
Archery	13 Oct-11 Nov
Muzzle loading gun	16-18 Nov
General gun	22-25 Nov, 8 Dec-1 Jan, 19 Jan-27 Feb
Late Primitive Weapon	14-24 Feb
Forest products	Each management unit differs
Other activities (i.e., fishing, berry picking, etc.)	No established seasons in open areas

Source: Johnson, 2007

FY = fiscal year

* Seasons may vary according to each individual management unit.

Other Activities

Hiking, bicycling, walking, picnicking, pleasure driving, berry picking, boating, horseback riding, swimming, bird watching and collection of forest products are other activities that regularly occur on the Eglin Reservation. All of these activities can be performed with an Eglin Recreation Permit, with the exception of collecting forest products such as deer moss, palmetto, pine straw, and wood mulch. These activities require an Eglin Forest Products Permit. No threatened or endangered plant species can be removed from the Eglin Reservation (U.S. Air Force, 2007).

3.5.2 Existing Condition

Ninety percent of the Base Tango area is currently closed to the public. Approximately 44 acres in the northeastern area of Base Tango is available for archery hunting. The Triangle is located in Management Unit 15. The entire area comprises 332 acres and is open for archery only. The area defined under Alternative 1 comprises 521 acres. Three hundred and thirteen acres in the southern portion are located in Management Unit 5 and are open for archery only. The northern portion is located in Management Unit 10 and covers 208 acres of area open to hunting.

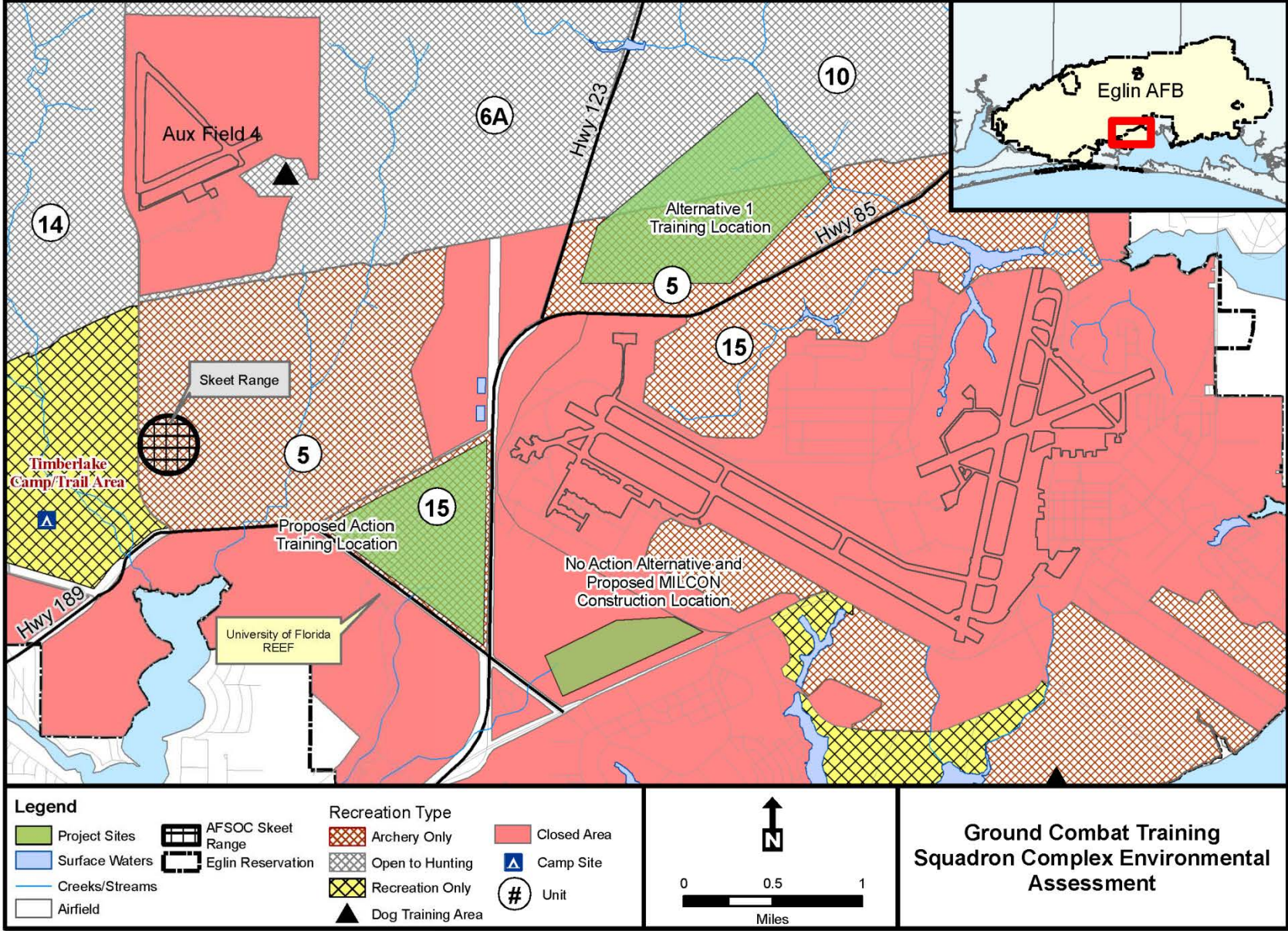


Figure 3-4. Recreational Usage within and near the Proposed and Alternative Locations

3.6 CULTURAL

3.6.1 Definition of the Resource

Cultural resources consist of prehistoric and historic sites, structures, artifacts, and any other physical or traditional evidence of human activity considered relevant to a particular culture or community for scientific, traditional, religious, or other reasons. Cultural resources include properties of traditional religious and cultural importance to federally recognized Indian tribes and items places or objects that meet the National Register criteria.

This section describes known historic properties within the affected areas that are potentially eligible for the NRHP, including any archaeological resources considered eligible, potentially eligible, or currently listed on the NRHP. This may also include historic structures, historic districts, any of the known historic cemeteries, or traditional cultural properties (TCPs).

Properties identified by the Air Force are evaluated according to the NRHP criteria, in consultation with the SHPO and other consulting parties as appropriate. Typically, if the SHPO and other parties, and the Air Force agree in writing that a historic property is eligible or not eligible to the NRHP, that judgment is sufficient for Section 106 purposes (36 CFR 800.4[c][2]). Procedures and criteria for this can be found in 36 CFR 63, *Determinations of Eligibility for Inclusion in the National Register of Historic Places* and in Eglin AFB's Integrated Cultural Resource Management Plan.

3.6.2 Existing Condition

Proposed Action: Training at the Triangle and MILCON at the Base Tango

Previous archaeological surveys conducted within the Triangle (Mallory and Campbell, 2003, 2005; Thomas and Campbell, 1992) have not documented cultural resources. There are no known archaeological sites, historic structures, historic cemeteries, or traditional cultural properties within this area.

No cultural resources are known to occur at Base Tango. The ground in the Base Tango area is heavily disturbed due to previous development; the construction of a large drainage swale along Nomad Avenue; and road, trail, and clearing construction and grading around the Eglin AFB main runway. Previous studies failed to document archaeological resources within this area (Thomas and Campbell, 1992). Additionally, no historic cemeteries or TCPs are located in Base Tango.

The southern portion of the Strategic Air Command (SAC) Alert Historic District is located adjacent to the northern portion of Base Tango. The proposed project area specifically abuts Area 2 of the SAC district. Contributing resources for Area 2 adjacent to the area include buildings 1315, 1321, 1326, 1328 (Table 3-7) (Eglin AFB, 2003).

Table 3-7. Historic Structures Located Within the Southern Portion of Area 2 of the Strategic Air Command Alert Historic District

Site Number	Building ID	Name	Notes	Year Built
8OK01382	001315	SAC Squadron Operations	Cold War Resource-NRHP Listed-Non-contributing member	1959
	001321	Supply and Equipment Warehouse	Cold War Resource-NRHP Listed-Contributing member	1962
8OK01384	001326	SAC General Purpose Aircraft Repair Shop	Cold War Resource-NRHP Listed-Non-contributing member	1959
8OK01385	001328	SAC Armament and Electronics Shop	Cold War Resource-NRHP Listed-Contributing member	1959

NRHP = National Register of Historic Places; SAC = Strategic Air Command

Alternative 1: Northeast of the Triangle

Previous archaeological surveys conducted within the Alternative 1 area have not documented cultural resources (Thomas and Campbell, 1992). No known archaeological sites, historic structures, historic cemeteries, or traditional cultural properties have been identified within the Proposed Action area.

No Action Alternative: Base Tango

As discussed under the Proposed Action, the Base Tango area has no known cultural resources. It is adjacent to the SAC Alert Historic District (Table 3-7).

3.7 TRANSPORTATION

3.7.1 Definition of the Resource

Transportation is defined as the movement of goods from place to place, whether by land, air, or water. For the purposes of this EA, transportation, as an affected resource, is discussed in terms of roadways that may be utilized by GCTS vehicles and convoys. Characteristics of roadway usage important to the analysis include the number of lanes, length in miles, adopted Level of Service (LOS) standard, current afternoon peak-hour, peak-direction traffic, and current operating afternoon peak-hour, peak-direction LOS. The adopted LOS standards are based on the Okaloosa County Comprehensive Plan, the 1996 Eglin Transportation Master Plan (U.S. Air Force, 1996b), and the June 2005 Okaloosa-Walton Transportation Planning Organization Congestion Management System Report.

3.7.2 Existing Condition

Proposed Action: Triangle and Base Tango MILCON Location

The key transportation resources likely to be used by GCTS units, were the Proposed Action to be implemented, include State Road (SR) 85 (also known as Highway 85), SR 189, and roadways within Eglin Main Base such as Nomad Way (Figure 3-5). Several of the study area roadways have been designated as part of the Strategic Intermodal System (SIS). The SIS is a

statewide network of high-priority transportation facilities, including the state's largest and most significant commercial service airports, the spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways. SIS facilities applicable to the Proposed Action include SR 123 and SR 85 (from SR 123 to the Okaloosa Regional Airport).

Table 3-8 lists the existing status of roads within the project area that may be used by GCTS vehicles. All roads in Table 3-8 are currently operating at or better than their adopted LOS standard.

Table 3-8. Status of Roads Near the Project Areas

Primary Road Segments	Number of Lanes	Length (miles)	Adopted LOS Standard	Peak Hour Peak Direction Traffic Volumes (2006 - Rounded)	Peak Hour Peak Direction LOS (2006)
General Bond Boulevard					
Between SR 85 & SR 189	2 (one way)	1.20	D	850	D
State Road 189					
Between Eglin Blvd & SR 85	4	0.51	E	700	B
Between SR 85 & General Bond Blvd	4	1.26	E	1,300	B
Nomad Way					
Between SR 85 & Pumphouse	2	1.23	E	250	C
Between Pumphouse and Eglin Blvd	2	0.85	E	250	C

Source: U.S. Air Force, 2008a (Eglin BRAC EIS)

LOS = level of service; SR = State Road

Alternative 1: Northeast of Triangle and Base Tango MILCON Location

Table 3-9 lists roads likely to be used with the implementation of Alternative 1. Sections of SR 85 and SR 123 are not currently meeting their adopted LOS standard.

Table 3-9. Status of Roads Near or Leading to the Alternative 1 Location

Primary Road Segments	Number of Lanes	Length (miles)	Adopted LOS Standard	Peak Hour Peak Direction Traffic Volumes (2006 - Rounded)	Peak Hour Peak Direction LOS (2006)
State Road 123					
Between SR 85 & SR 85N	2	5.00	D	1,000	E
State Road 85					
Between SR 123 & Nomad Way/ACC Gate	4	1.05	D	2,400	F
Between ACC Gate at Nomad Way & SR 189 (Lewis Turner Blvd)	4	0.94	D	2,100	F

Table 3-9. Status of Roads Near or Leading to the Alternative 1 Location, Cont'd

Primary Road Segments	Number of Lanes	Length (miles)	Adopted LOS Standard	Peak Hour Peak Direction Traffic Volumes (2006 - Rounded)	Peak Hour Peak Direction LOS (2006)
Between SR 189 (Lewis Turner Blvd) & Eglin Blvd	4	0.50	D	900	B
Nomad Way					
Between SR 85 & Pumphouse	2	1.23	E	250	C
Between Pumphouse and Eglin Blvd	2	0.85	E	250	C

Source: U.S. Air Force, 2008a (Eglin BRAC EIS)

ACC = Air Combat Command; LOS = level of service; SR = State Road

No Action Alternative: Base Tango

Eglin Main Base roadways, such as Nomad Way and access roads into the Base Tango area, constitute the existing road usage for the No Action Alternative.

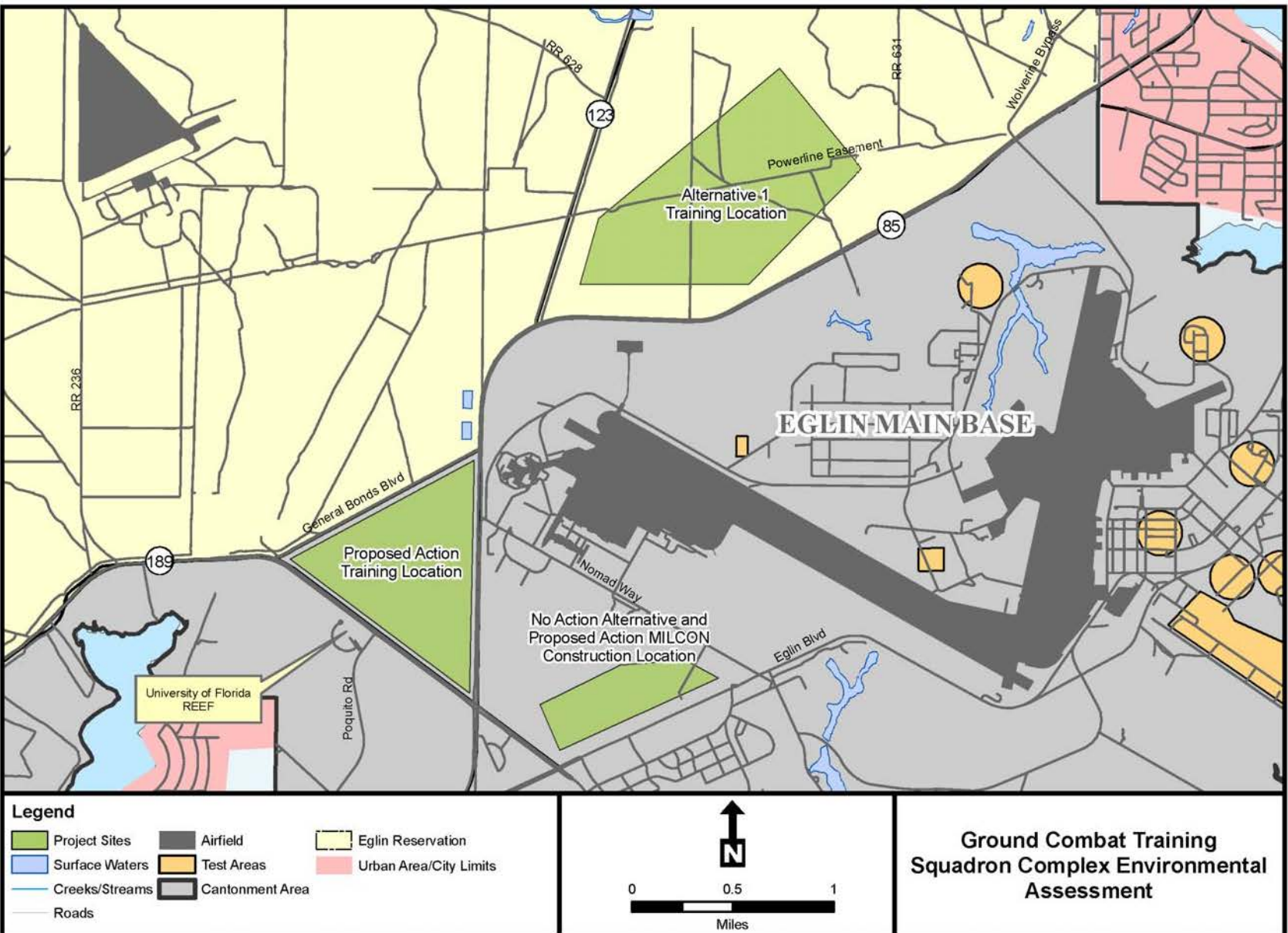


Figure 3-5. Roads Near the Proposed and Alternative Action Locations

This page is intentionally blank.

4. ENVIRONMENTAL CONSEQUENCES

4.1 AIR QUALITY

Air quality impacts would be significant if Proposed Action emissions were anticipated to be greater than ten percent of the ROI's annual baseline emissions (Table 3-2).

4.1.1 Proposed Action Training Location: Triangle and Base Tango MILCON Location

Recent NEPA documentation has analyzed impacts to air quality within the ROI from actions similar to those under the Proposed Action, though much larger in scope. The *Proposed Implementation of the BRAC 2005 Decisions and Related Actions at Eglin AFB, FL Final Environmental Impact Statement* (U.S. Air Force, 2008a) and the *Interstitial Area Draft Range EA (REA)* (U.S. Air Force, 2008b) analyzed construction, transportation, and munitions expenditures far exceeding those proposed as part of the GCTS actions. The BRAC EIS can be viewed in its entirety on Eglin AFB's website at <http://www.eglin.af.mil/> and the Interstitial Draft REA is available through Eglin AFB Public Affairs by contacting Mr. Mike Spaits at (850) 882-3931.

Although Okaloosa County, like all counties in Florida, is in attainment, in order to provide a consistent approach, the General Conformity Rule's 10 percent criterion is often used to conduct air quality analysis. Neither the BRAC actions nor those associated with the Interstitial Area REA neared the 10 percent criterion. Since the emissions from the Proposed Action are expected to be much less than those from either of these actions, no significant impacts to air quality are anticipated.

The Proposed Action would include combustion of fossil fuels, which would lead to increased greenhouse gas emissions. However, the CEQ recommended that emissions equal to or greater than 25,000 metric tons annually should be included in NEPA assessments (CEQ, 2010). Project C&D emissions from fossil fuel combustion would not approach 25,000 metric tons. Thus, no major impacts to local or regional air quality would result from activities at Eglin AFB associated with implementation of the Proposed Action or any alternatives.

4.1.2 Alternative 1 Training Location: Northeast of Triangle and Base Tango MILCON Location

The air quality impacts would be the same as for the Proposed Action, since the ROI encompasses all of Okaloosa County. Therefore, regardless of the location, the air quality analysis would not change. No impacts are expected from Alternative 1.

4.1.3 No Action Alternative

Under the No Action Alternative, the GCTS Complex would remain at Base Tango, and no construction activities would occur. Therefore, there would be no increased emissions and no impacts to the baseline emissions for the ROI under the No Action Alternative.

4.2 WATER RESOURCES

4.2.1 Proposed Action Training Location

Triangle Area

The Proposed Action would not significantly affect water resources. There are no surface waters within 3,900 feet and the nearest wetland and floodplain area is 1,100 feet to the west. Soils are sandy and permeable. Creation of roads (dirt, gravel, or limestone) on the NW portion of the site and any partial clearing would not have a significant impact to stormwater. Typical construction BMPs would be implemented as required. The impervious areas created by the proposed construction would require a NPDES Permit because the total area of disturbance is greater than one acre. Construction on the Eglin Reservation must comply with the Eglin AFB Modified Multi-Sector General NPDES Stormwater Permit (issued by the FDEP) and Rule 62-25, FAC. A notice of intent would be filed with the FDEP to acquire the NPDES permit. In addition, stormwater management BMPs may require implementation at the proposed construction sites to minimize on- and off-site pollution potentials.

Up to 600 battlefield simulators would be expended annually within the Triangle. In the Interstitial Area REA, the Air Force evaluated the potential for explosive residue and emission products from these devices to affect water quality and did not find a significant impact from comparatively much greater numbers of expenditures (U.S. Air Force, 2008b).

Base Tango MILCON Construction Location

Construction in the garrison area would not significantly affect water resources. Construction would increase impervious surface area and stormwater; however, the potential for stormwater and sediment transport off-site into surface waters is low, given the permeable soil type and relatively flat terrain at the site.

The construction of impervious area is larger than one acre; therefore, the Proposed Action would require coverage under NPDES regulation as administered by the FDEP (Rule 62-621, FAC). Also, an Erosion, Sedimentation, and Pollution Control Plan would be required. This would serve to further ensure that erosion and the transport of sediment off the project site do not occur.

In accordance with FDEP regulations, the Proposed Action would likely require an Environmental Resource Permit be applied for. This permitting process would determine if the construction of a stormwater discharge and on-site treatment feature(s) are required. Design of the project would consider the area landscape and physical features to determine whether the site would include a retention pond or series of swales to contain runoff. A Florida registered professional engineer would design the proposed retention feature to meet FDEP regulations.

This construction project required consistency with Florida's CZMA. FDEP reviewed and concurred with the Air Force negative determination for this project (Appendix A).

4.2.2 Alternative 1 Training Location: Northeast of the Triangle

Alternative 1

Alternative 1 would not significantly affect water resources. Any clearing or land disturbance would need to be minimized near Tom's Creek on the northeastern portion of the site in order to avoid water resources being adversely affected. The potential for stormwater and sediment transport offsite into surface waters is low, given that 90 percent of the soils are permeable and the terrain is relatively flat. There is sufficient area at Alternative 1 such that the training could be sited away from Tom's Creek and any associated wetland areas. If this alternative were selected, the GCTS would avoid these areas.

4.2.3 No Action Alternative and Proposed Action MILCON Construction Location

There would be no potential impacts to water resources under this alternative. GCTS activities would continue as is and existing facilities would remain. There would be no change to impervious surfaces, nor increase in stormwater flow or output.

4.3 NOISE

The DoD, Air Force, and the National Institute of Occupational Safety and Health (NIOSH) all have established occupational noise exposure damage risk criteria (or "standard") for hearing loss based upon not exceeding **85 dBA as an 8-hour time weighted average**, with a 3 dB exchange rate in a work environment. (The exchange rate is an increment of decibels that requires the halving of exposure time, or a decrement of decibels that requires the doubling of exposure time. For example, a 3 dB exchange rate requires that noise exposure time be halved for each 3 dB increase in noise level. Therefore, an individual would achieve the limit for risk criteria at 88 dBA, for a time period of 4 hours, and at 91 dB, for a time period of 2 hours.) The standard assumes "quiet" (where an individual remains in an environment with noise levels less than 72 dBA) for the balance of the 24-hour period. Also, Air Force and Occupational Safety and Health Administration (OSHA) occupational standards prohibit any unprotected worker exposure to continuous (i.e., of a duration greater than one second) noise exceeding a 115 dBA sound level. OSHA established this additional standard to reduce the risk of workers developing noise-induced hearing loss.

Noise impacts would be significant if the level of noise received in the proposed MILCON facilities exceeded NIOSH occupational standards of 85 dBA within an 8-hour period. In addition to being a human health concern, excessive levels of noise could render the new facilities unusable for teaching purposes. Noise produced from simunitions or practice grenades that exceeded 140 unweighted decibels (dBP) off of Eglin AFB property would constitute a public health concern, and a potentially significant impact. The analysis and determination of significance is based upon these two metrics.

4.3.1 Proposed Action

The analysis finds there would be no significant noise impacts from the Proposed Action from an occupational hazard standpoint, nor to nearby receptors from training munitions noise.

Triangle Training Location

The Proposed Action would not have significant impacts on noise sensitive receptors because battlefield simulators and practice grenades would be expended approximately 1,000 feet from the nearest public receptor, the REEF. The REEF is located opposite of the Triangle across Highway 85. Together, the battlefield simulators and practice grenades contain an average of .05 pound (lb) explosive and have no shrapnel (U.S. Air Force, 2008c). The devices only produce noise to add an element of realism to training. Wooded areas, which separate the Triangle from the REEF, would attenuate or dampen the noise perceived at the REEF location. Swearingen and White (2005) estimate a maximum of 4 dB sound reduction from wooded areas. Table 4-1 lists sound produced by .05 lb of explosive as calculated by the Noise Assessment and Prediction System (NAPS) model and the amount of sound attenuation that would occur (Smith et al., 1991). The nearest residential area is about 2,500 feet away from the simulator training area.

Table 4-1. Received Noise and Distance to Receptors from Simunition Detonations

Feet	Decibels	dBP level after Attenuation ¹	Threshold	Receptors
3.3	183	179		
252	141	137	140 dBP Human Threshold of Pain	This level of noise would not leave the Training Area
500	132	128		
749	128	124		
998	124	120		
1246	121	117		
1495	119	115	Moderately annoy 15 percent of persons exposed	REEF
1743	117	113		
1992	116	112		
2240	114	110		
2489	113	109		Residential Area

dB = decibels; dBP = unweighted decibels; REEF = University of Florida's Research and Engineering Education Facility

¹Attenuation based on a 4 dB reduction for forested areas (Swearingen and White, 2005)

Aircraft Noise

The Proposed Action Training Location is located in an area extensively affected by aircraft noise. Approximately 80 percent of the Triangle location under the Proposed Action would be affected by noise levels of 65 dBA or greater. Two acres in the north corner of the Triangle are in the 75-79 dBA range. About 68 acres are under the 70-74 dBA contour, while the majority of the area (197 acres) would experience 65-69 dBA noise levels.

Base Tango Proposed MILCON Construction

Proposed classroom facilities would be situated in an area of noise of between 65 and 70 dBA on average from aircraft associated with the Eglin Main airfield, at least under current conditions. Generally, buildings reduce outside noise by 18 to 27 dB depending on whether windows would

be open or closed (USACHPPM, 2005). Given the noise reduction that would be realized from the new facilities, perceived airfield noise would be reduced to at least 47 to 52 dBA within the classroom. This level of noise would not interfere with classroom instruction.

Instructors and students involved in training within the Triangle would be exposed on average to noise of 65 to 70 dBA from airfield operations, which would not exceed the 8-hour 85 dB NIOSH damage risk criteria for occupational noise exposure. However, proposed MILCON construction of classrooms in the Base Tango area would also be susceptible to noise levels above 65 dBA. The entire 117 acre area is located within noise contours of 65 dBA or greater. Approximately 40 acres are within the 65-69 dBA range, 59 acres in 70-74 dBA, and 18 acres in the 75-79 dBA range.

According to a study conducted by the FICUN, noise levels between 65 and 70 dB DNL are compatible with educational services, such as schools, provided that measures are taken to provide noise level reduction in the buildings of 25 dB (FICUN, 1980). Noise levels between 70 and 75 dB DNL are also compatible with educational services, with noise level reduction of 30 dB. Noise levels of 75 dB DNL and above are not considered compatible with educational services. The 18 acres in the northeast portion of the Base Tango area would not be compatible with educational uses according to FICUN. Classrooms in the Base Tango area should be sited accordingly and constructed with appropriate sound attenuation measures. If the 75-79 dBA area is avoided and facilities are sound attenuated appropriately elsewhere, there would not be any significant impacts due to noise.

4.3.2 Alternative 1 Training Location: Northeast of the Triangle

There would be no significant noise impacts associated with this location. Currently the Alternative 1 location falls within an area exposed to average noise of less than 65 dBA. There would be no occupational noise concerns at this location as long as the current runway configuration remains unchanged. Noise from battlefield simulators and practice grenades would not exceed 140 dBP off of the reservation, nor affect sensitive noise receptors, the closest of which is a residential area 7,800 feet away.

Aircraft Noise

The Alternative 1 Training Location is also extensively affected by aircraft noise. Nearly the entire area would be affected by noise levels of 65 dBA or greater. About 105 acres are under the 65-69 dBA contour, while the majority of the area (416 acres) would experience 70-74 dBA noise levels. Only one acre in the northeast corner of the training location would be outside of the noise contours greater than 65 dBA.

4.3.3 No Action Alternative: Base Tango

There would be no change in noise impacts under the No Action Alternative. However, as discussed above, the entire 117 acre area is already located within noise contours of 65 dBA or greater. Approximately 40 acres are within the 65-69 dBA range, 59 acres in 70-74 dBA, and 18 acres in the 75-79 dBA range.

4.4 BIOLOGICAL RESOURCES

Biological resource impacts would be considered significant if the action is likely to jeopardize the continued existence of a species.

4.4.1 Proposed Action

Triangle Training Location

The Proposed Action would not significantly affect biological resources. The partial clearing of 45 acres of wooded area may increase or decrease the potential for human-bear interaction. Black bears have been sighted near the proposed location, possibly attracted due to a human presence (garbage, etc.), as many more sightings are located near urbanized areas. In addition, 50 bears have been killed since 1984 by automobiles on roads that border Eglin AFB property (Eglin AFB, 2007). It is not possible to know whether development of the Proposed Action would increase bear activity (foraging in garbage, etc.) or decrease it (avoidance of human-related noise, etc.). The proponent is required to notify the Eglin Natural Resources Section (850-882-4164) if a black bear, gopher tortoise, or indigo snake is sighted.

Clearing activities and vehicle traffic associated with daily cantonment operations may also affect the state-listed gopher tortoise and federally endangered indigo snake. Although it is unlikely these species would be present due to poor habitat conditions, surveys for these species would occur immediately prior to clearing. If any animals were located during the surveys, a relocation permit would be obtained from the FWC, and animals in imminent danger from vegetative clearing would be relocated. Instructing vehicle and equipment operators to stop and allow tortoises, indigo snakes and bears to move away from the area before continuing activities would minimize the potential for vehicle strikes.

Land clearing activities also have the potential to impact birds species protected under the Migratory Bird Treaty Act. The Proposed Action would potentially impact 100 acres of migratory bird habitat and has the potential to cause adverse but not significant impacts to the resource. Potential impacts would be greatest during land clearing, which could interrupt breeding and injure or kill adults and young. To avoid impacts to migratory birds, land clearing should occur on or after September 1 through March 15 to avoid the nesting season. The Migratory Bird Treaty Act does not contain any prohibition that applies to the destruction of a migratory bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. If clearing occurs before September 1, care would be taken to leave snags (dead trees used for nesting) in place. If snags need to be removed for construction purposes, they may be removed after September 1. Activities will cease if active bird nests with eggs or young are found. Coordination with Eglin Natural Resources Section, 96 CEG/CEVSN, is required prior to project initiation to ensure compliance with the Migratory Bird Treaty Act. Therefore, no significant impacts to migratory birds are expected from land clearing activities.

The use of trip flares, smoke grenades, and battlefield simulators can increase the potential of wildfires, which can have both beneficial and negative impacts on natural habitats depending on

a number of factors such as the weather, amount of dry vegetative matter available, and measures used to control the fire. Significant impacts from wildfires would not occur because the proponent would utilize pyrotechnic items in accordance with *Eglin's Wildfire Specific Action Guide Restrictions* (U.S. Air Force, 2006). Additionally, the GCTS currently abides by AAC safety guidance and has a squadron Operating Instruction that dictates fire safety. All of the ground burst/artillery simulators, trip flares and smoke grenades are either emplaced in open/controlled areas or closely monitored. The proponent would continue their current practice of placing fire extinguishers throughout their training area. Section 6.2 identifies specific measures the proponent is required to follow in accordance with the guide.

Base Tango Proposed MILCON Construction

Construction in the garrison area would not significantly affect biological resources. Construction would increase impervious surfaces but due to the location of the site in relation to major roads and Eglin Main Base, poor habitat for flora and fauna are expected.

Seventy-three inactive cavity trees for the federally endangered RCW are located within a half-mile of Base Tango. Eglin AFB's Natural Resources Section biologists indicate there is an extremely low potential for this cluster to become active because the habitat is not suitable for future colonization (Gault, 2006). No good foraging habitat is available near the trees, with most of the surrounding habitat consisting of landscaped/urban area.

4.4.2 Alternative 1 Training Location: Northeast of the Triangle

Alternative 1 would not significantly affect biological resources. Any clearing, training, or land disturbance would need to be minimized near Tom's Creek on the northeastern portion of the site in order to avoid biological resources being adversely affected and Okaloosa darter (*Etheostoma okaloosae*) habitat being disturbed. During construction the proponent would maintain at least a 100-foot vegetated buffer and employ erosion control BMPs such as silt fencing near the Okaloosa darter stream. Section 6.2 identifies specific BMPs.

Any land disturbance may increase or decrease the potential for human-bear interaction. Black bears have been sighted near the Alternative 1 location, possibly attracted due to a human presence (garbage, etc.), as many sightings are located near urbanized areas. It is not possible to know whether development of the Alternative 1 Action would increase bear activity (foraging in garbage, etc.) or decrease it (avoidance of human-related noise, etc.).

4.4.3 No Action Alternative: Base Tango

There would be no potential impacts to biological resources under this alternative.

4.5 RECREATION

Impacts to recreation would be significant if the closure of areas had the potential for public controversy; however, the military mission has priority over other uses of the Eglin Range. This policy is consistent with the Sikes Act (16 USC 670a-670f, last amended November 1977) which

authorizes the DoD to carry out a program for public recreation on military lands, subject to requirements necessary to ensure safety and military security. The Act specifies no net loss in the capability of military installation lands to support the military mission of the installation.

4.5.1 Proposed Action

Triangle Training Location

The area defined under the Proposed Action is located in Management Unit 15. The entire area comprises 332 acres and is open for archery only. Military activities take precedence over recreational activities on base and therefore the area is subject to be closed for recreation depending on military use. Under this alternative, it is possible that the entire area will be closed to archery. The area of the Proposed Action that could be closed to archery represents nearly 1.7 percent of the total remaining area available for archery on Eglin AFB. Since this represents a small portion of the total area available for archery, it is expected that there would be no significant impact to recreation under the Proposed Action.

Base Tango Proposed MILCON Construction

Ninety percent of the Base Tango area is currently closed to the public. MILCON construction would not affect the 44 acres in the northeastern area of Base Tango that is currently used for archery since the construction would occur in the southern portion of Base Tango.

4.5.2 Alternative 1 Training Location: Northeast of the Triangle

The area defined under Alternative 1 comprises 521 acres. Three hundred and thirteen acres in the southern portion are located in Management Unit 5 and are open for archery only. The northern portion is located in Management Unit 10 and covers 208 acres of area open to hunting. Military activities take precedence over recreational activities on base and therefore the area is subject to be closed for recreation depending on military use. Under this alternative, it is possible that the area occupied will be closed to archery and hunting. However, since the area defined under Alternative 2 comprises approximately 1.7 percent of total area available for archery on Eglin AFB and less than 1 percent of the total area available for hunting on Eglin AFB, it is expected that there would be no significant impacts to recreation under this alternative.

4.5.3 No Action Alternative

Under the No Action Alternative, the GCTS would not relocate complexes. Recreational use at Base Tango would remain the same with 383 acres, or nearly 90 percent, of the Base Tango area closed to the public. Forty-four acres in the northeastern area of Base Tango would remain open to archery only during specified dates, therefore, there would be no significant impact to recreation under the No Action Alternative.

4.6 CULTURAL

4.6.1 Proposed Action

Triangle Training Location

No cultural resources would be adversely affected by the selection of the Proposed Action (Preferred Alternative). No known archaeological sites, historic structures, historic districts, historic cemeteries, or TCPs have been previously located within this area.

Base Tango MILCON Construction Location

Cultural resources would not be affected by the selection of the Proposed Action. No archaeological sites or historic cemeteries have been identified within the Base Tango area.

The Air Force does not expect the activities proposed for this area to significantly affect the nearby SAC Alert Historic District, which was previously evaluated as eligible for the NRHP.

4.6.2 Alternative 1 Training Location: Northeast of the Triangle

No cultural resources would be adversely affected by the selection of Alternative 1. No known archaeological sites, historic structures, historic districts, historic cemeteries, or TCPs have been previously located within this alternative area.

4.6.3 No Action Alternative: Base Tango

No cultural resources would be adversely affected by the selection of the No Action Alternative. No archaeological sites or historic cemeteries have been identified within this area.

It is not expected that the activities currently underway or proposed for this area would adversely affect the nearby SAC Alert Historic District, which was previously evaluated as eligible for the NRHP. Under the recent 2005 BRAC, implementation of the Joint Strike Fighter (JSF) initial joint training site (IJTS), calls for a number of buildings located near the Eglin Main Base airfield to be constructed, renovated, or demolished. One of these alternatives includes the planned renovation of several structures within the SAC Alert Historic District (including buildings 1315, 1321, 1326, and 1328). After consultation with the SHPO/Tribal Historic Preservation Officer (THPO) as per Eglin AFB's 2003 programmatic agreement regarding historic and archaeological resources, mitigation or protection of these resources will be required for all affected facilities as part of the beddown of the JSF program.

4.7 TRANSPORTATION

4.7.1 Proposed Action

Triangle Training Location

Transportation would not be significantly affected. GCTS generated traffic would not decrease the level of surface for any of the roads used to access the Triangle from Base Tango. At most,

the GCTS increase in traffic would be on the order of a less than 10 vehicles, a few times a week. Even the addition of 10 vehicles a few times a week into the peak hour traffic would not represent a significant increase, nor substantially decrease the LOS. For access to the Triangle from Highway 189, a merge or turn lane into the Triangle area would be necessary. Likewise, a turn lane would be required if GCTS units desired to access the Triangle from General Bond Boulevard. Units would potentially utilize either Highway 189 or General Bond Boulevard, though Highway 189 presently has more capacity (Table 3-8, Section 3.7). The travel distance between Base Tango and the Triangle would probably be less than two miles for most routes.

Base Tango MILCON Construction Location

Since the GCTS is currently occupying Base Tango, there would be no change in road usage. Units would continue to access the area through local Eglin Main Base roadways, such as Nomad Way.

4.7.2 Alternative 1 Training Location: Northeast of the Triangle

The SR 123 and SR 85 segments GCTS units would utilize to travel to and from the Alternative 1 Training location are not currently meeting their LOS standard. GCTS vehicles would make an incremental contribution to the decreased LOS were they to travel the roads during peak usage times of early morning and late afternoon. Travel times are expected to be variable and not consistently within peak hours. The contribution of vehicles from GCTS activities and effects to roadway LOS would not be significant.

4.7.3 No Action Alternative: Base Tango

The No Action Alternative would not have significant impacts on transportation. The GCTS would continue to train at Base Tango and utilize the existing facilities and nearby local base roadways.

This page is intentionally blank.

5. CUMULATIVE IMPACTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

According to the CEQ regulations, cumulative impact analysis in an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7).

40 CFR 1508.7 defines impacts or effects as:

- (a) Direct effects, which are caused by the action and occur at the same time and place.
- (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

5.1 PAST AND PRESENT ACTIONS

The Air Force has not identified any other past or present actions that are relevant to the current Proposed Action. The Air Force is currently implementing the Eglin AFB 2005 BRAC decision.

5.2 REASONABLY FORESEEABLE FUTURE ACTIONS

An EIS has been completed for the 2005 BRAC decision to establish the JSF Integrated Training Center (ITC) at Eglin AFB, which would establish an IJTS for joint Air Force, Navy, and Marine Corps JSF training organizations to teach aviators and maintenance technicians how to properly operate and maintain this new weapons system. As part of the plan 200 instructors are relocating to Eglin AFB. The 7th Special Forces Group (Airborne) (7SFG[A]) is currently relocating from Fort Bragg, North Carolina to Eglin AFB. Most of the aspects of the 7SFG(A) beddown are underway, and others, like training, will be implemented in the reasonably foreseeable future. Potential impacts from these programs due to changing mission and additional personnel may include noise, air quality, munitions storage concerns, transportation, and utilities concerns, among others. The 7SFG(A) cantonment and training areas would not have any overlap with the GCTS Complex or training actions. A supplemental EIS for JSF runway configurations will analyze options for new runways or reconfiguring existing Eglin runways to accommodate additional aircraft. Some of the alternatives may result in additional noise impacts to the proposed GCTS Complex. The proposed biomass plant location in the southeast corner of the Triangle may result in increased traffic from trucks delivering biomass materials to the plant. Analysis, once complete, may yield other potential impacts to the GCTS Complex and training area.

5.3 ANALYSIS OF CUMULATIVE IMPACTS

5.3.1 Air Quality

With the projects proposed in this plan, conjoined with the ongoing Fort Walton Beach-Niceville Bypass and Eglin AFB BRAC projects, pollutant emissions would increase. This increase in pollutants would be due to construction projects, an influx of people to the area, and introduction of the JSF ITC and associated aircraft. Construction emissions are expected to be the primary cause for increased emissions, which would be a temporary, short-term affect. The increase in population from the BRAC would be a permanent increase in air emissions from personally owned vehicle emissions. These emissions are expected to be minimal as compared to Okaloosa, Santa Rosa, and Walton County emissions. No permanent adverse impacts to regional air quality are expected cumulatively.

Also, the construction activities occurring around the base would cause a temporary net increase in greenhouse gas (GHG) emissions from construction vehicles and worker commutes. Overall these projects are expected to cause temporary increases in regional air emissions. However, based on the analysis presented in the Eglin BRAC SEIS and other air emissions associated with the BRAC actions, when considered with the Proposed Action, there would not be a significant adverse impact to regional air quality or GHG emissions from a cumulative perspective.

5.3.2 Noise

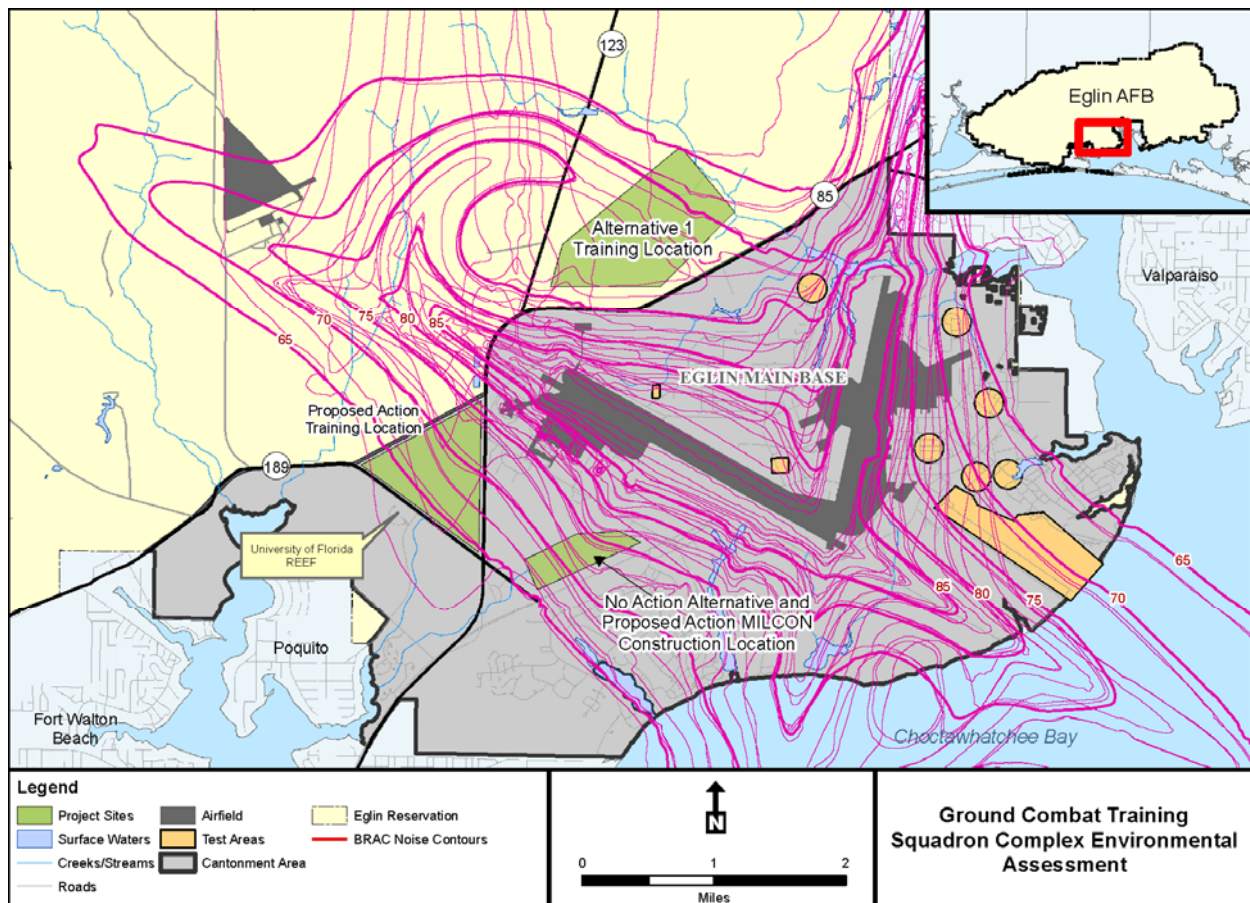
Cumulative impacts would occur wherever noise impacts from proposed actions would overlap with noise impacts resulting from other reasonably foreseeable actions planned to occur at Eglin AFB. Many of the relevant past and present actions considered in the cumulative impacts analysis involve construction or demolition. Construction noise is temporary, lasting only for the duration of the construction project, and is typically limited to normal working hours (7:00 AM to 5:00 PM). Construction noise impacts associated with these projects are expected to be limited to within the boundaries of Eglin AFB and would be insignificant either separately or cumulatively.

The projects that would have the greatest cumulative noise impacts are the BRAC related actions at Eglin AFB, including the JSF aircraft flight training operations. At this time it is unknown which F-35 alternative would be selected. However, based on analysis in the *Eglin BRAC Supplemental EIS for F-35 Beddown at Eglin AFB* (the “F-35 SEIS”), all alternatives could have potentially significant impacts from F-35 noise depending on the F-35 SEIS alternative selection and the final siting of GCTS classrooms.

Figure 5-1. visually represents the noise contours associated with each F-35 SEIS alternative and their potential impact on alternatives. Revised F-35 operational data and noise modeling in the future may change the resulting noise contours, but the Air Force anticipates that any change will be overall beneficial, not detrimental. Under any of the JSF flight training action alternatives, time-averaged aircraft noise levels at several known noise-sensitive locations would increase to a level that may be considered by the public to be significant. The Proposed Action and

Alternative 1 training areas as well as the No Action Alternative and Proposed Action MILCON construction area would be located in areas exposed to sound levels ranging from 65 to 80 dB DNL for the 59 aircraft scenario where Eglin Main Base is the primary airfield used by the JSF.

The proponent would be required to construct facilities in the affected areas with proper noise abatement. Whenever possible, educational land use should be located below 65 dB DNL according to Air Force land use recommendations (Air Force Handbook [AFH] 32-7084). Where practicable, structures should incorporate noise attenuation measures in accordance with the Air Force noise guidelines published in the U.S. Air Force Family Housing Guide and AFH 32-7084, *AICUZ Program Managers Guide*.



. Figure 5-1. Noise Contours from F-35 SEIS Alternatives

5.3.3 Biological Resources

There would not be significant cumulative impacts to biological resources. The area potentially affected is comprised primarily of the Sandhills ecological association, the dominant type of habitat found on Eglin AFB. Loss of habitat from the Proposed Action combined with habitat losses from other projects is a cumulative impact, but the natural setting on Eglin AFB is actively managed to ensure sustainability. Prior to activity, Eglin Natural Resources personnel would survey the area for gopher tortoise, and relocate this species as necessary. No significant

cumulative impacts to gopher tortoise from this and other actions would occur as a result of this precautionary measure.

5.3.4 Recreation

As with the BRAC action, the implementation of the Proposed Action or Alternative 1 would cause some areas presently used for recreation to be closed to the public. This cumulative impact would not be significant, given the capacity of other recreational areas on Eglin AFB to accommodate the public.

5.3.5 Cultural Resources

Potential cumulative impacts to cultural resources would not be significant. Potential impacts to cultural resources primarily include, but are not limited to, projects with a construction component, vehicle movement, land clearing, and ground training. Such actions include road and building construction, and future training operations. Under any of these activities the 96 CEG/CEVH would be contacted and proper access and operation points would be determined for heavy equipment and training activities. Consequently, direct impacts to known cultural resources would be avoided.

Apparent land disturbances that may occur would be limited to the construction of training facilities and training exercises which would be transitory. If the identified resources in Alternative 1 are properly avoided or mitigated, then no impacts are expected.

Under the recent 2005 BRAC, implementation of the JSF IJTS calls for a number of buildings located near the Eglin Main Base airfield to be constructed, renovated, or demolished. One of these alternatives includes the planned renovation of several structures within the SAC Alert Historic District (including buildings 1315, 1321, 1326, and 1328). After consultation with the SHPO/THPO as per Eglin AFB's 2003 programmatic agreement regarding historic and archaeological resources, mitigation or protection of these resources will be required for all affected facilities as part of the beddown of the JSF program.

5.3.6 Transportation

The analysis of future (2016) transportation impacts in the BRAC EIS (U.S. Air Force, 2008a) indicated that SR 189, which would be expected to be used by GCTS units under the Proposed Action, would still meet the LOS standards at that time. While the contribution of GCTS vehicles was not factored into the analysis, the number of GCTS vehicles is very minor by comparison. As a result of the BRAC action, Alternative 1 roadways such as SR 85 and SR 123 that currently do not meet standards would experience even greater LOS reductions. The contribution of the GCTS vehicles would represent an incremental and minor contribution to the overall future traffic, and it is unlikely GCTS convoys would consistently travel during the peak rush hour periods of early morning and late afternoon.

5.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that EAs include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action or Alternative 1. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the Proposed Action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site). Implementation of the Proposed Action may result in an irreversible and/or irretrievable commitment of natural resources since currently undeveloped land would be altered, specifically the removal of mature vegetation. However, these areas could be returned to their existing state if the proposed facilities were removed and the areas were allowed to revert back to its present state.

Any environmental consequences as a result of this project are considered short-term and temporary. Construction activities would require consumption of limited amounts of materials typically associated with interior and exterior construction (e.g., concrete, wiring, piping, insulation, and windows). The Air Force does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, the Air Force does not consider these amounts to be appreciable and do not expect them to affect the availability of these resources.

5.4.1 No Action Alternative

Under the No Action Alternative, the proponent would continue training activities in the area to the southwest of Eglin Main as is occurring currently. This alternative is not viable since it is not in accordance with the Eglin Base Master Plan. There is not enough room at this site for GCTS facilities and training areas. No irretrievable or irreversible commitment of resources would occur under the No Action Alternative.

This page is intentionally blank.

6. PLANS, PERMITS, AND MANAGEMENT ACTIONS

The following is a list of regulations, plans, permits, and management actions associated with the Proposed Action. The environmental impact analysis process for this EA identified the need for these requirements, and the proponent and interested parties involved in the Proposed Action cooperated to develop them. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through the Proposed Action's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and management actions.

6.1 REGULATIONS, PLANS, AND PERMITS

- CZMA Consistency Determination (Appendix A)
- Erosion, Sedimentation, and Pollution Control Plan
- FDEP Environmental Resource Permit
- FDEP NPDES Permit

6.2 MANAGEMENT ACTIONS

The proponent is responsible for implementation of the following management actions.

6.2.1 Water Resources

The proponent will ensure that the design engineer coordinates with 96 CEG/CEVC Compliance Engineering (850-882-7760) for final stormwater design and permitting.

The proponent would ensure that the construction contractor implements the following storm water and erosion control BMPs:

- Silt fences and hay bales may be required during construction to avoid soil run-off.
- Inspect BMPs on a weekly basis and after rain events. Replace fencing as needed.
- In permits and site plan designs, include site-specific management requirements for erosion and sediment control.
- For construction equipment (e.g., cement mixers), designate "staging areas" to contain any chemicals, solvents, or toxins and prevent them from entering surface waters.
- Stabilize the construction site entrance using FDOT approved stone and geotextile (filter fabric).
- Inspect and maintain the aforementioned BMPs to ensure effectiveness.

6.2.2 Biological Resources

- Eglin AFB Natural Resources personnel will perform a gopher tortoise survey prior to any construction or disturbance.
- The proponent is required to notify the Eglin Natural Resources Section (850-882-4164) if a black bear, gopher tortoise, or indigo snake is sighted.
- To avoid impacts to migratory birds, land clearing should occur on or after September 1 through March 15 to avoid the nesting season. Coordination with Eglin Natural Resources Section, 96 CEG/CEVSN, is required prior to project initiation to ensure compliance with the Migratory Bird Treaty Act.

Wildfire Restrictions Applicable to GCTS Training

- *Eglin AFB Wildfire Specific Action Guide Restrictions* (U.S. Air Force, 2006) regarding forest fire danger ratings for pyrotechnics use will be adhered to.
- Per the Specific Action Guide for wildfire readiness, if fire danger is:
 - Moderate – No restrictions on pyrotechnics. A fire watch is required to be posted for a minimum of 20 minutes after use of pyrotechnics has been completed.
 - High – Use caution with pyrotechnics and post a fire watch for a minimum of 30 minutes after use of pyrotechnics has been completed.
 - Very High – Use simulators or grenades only on roads or in pits. Cleared areas for pyrotechnics should be a minimum of 1.5 times the blast radius.
 - Extreme – No pyrotechnics allowed without prior approval from the Wildland Fire Program Manager or their designee at Eglin AFB Natural Resources (Jackson Guard) (96 CEG/CEVSNP, 850-882-6233 or FAX 850-882-5321).
- Fire danger can be determined by calling the dispatch office or on the Environmental Management website in the Fire Management Section.
- Immediately notify Eglin AFB Fire Department Dispatch of any wildfire.
- The use of all pyrotechnic devices will be under the supervision of qualified personnel.
- In order to protect training objectives and personnel from wildland fires (wildfires and prescribed fires) and prevent conflicts between fire management operations and training operations, coordinate with Jackson Guard's Fire Management Element (96 CEG/CEVSNP, 850-882-6233) on the following:
 - Notify 96 CEG/CEVSNP when a new area is activated or deactivated in order to keep wildland fire "Suppression Considerations" map current.
 - Provide GPS coordinates for all training areas and activities; to include foxholes, fighting positions, ammunition (including blanks), trip flares, concertina wire, and other types of residue.
 - Provide GPS coordinates of all combustible "objectives" built or placed in the interstitial area that need to be protected from fires.

- Provide information that will allow protection of training infrastructure from wildland fires.

6.2.3 Debris

The proponent is required to collect debris from expenditures of small arms munitions so that brass cartridges may be recycled. Other debris from pyrotechnics or other expenditures should be disposed of properly.

6.2.4 Cultural Resources

Should any inadvertent discoveries of archaeological materials be made during the course of land clearing, all actions in the immediate vicinity would cease and efforts would be taken to protect the find from further impact.

This page is intentionally blank.

7. LIST OF PREPARERS

Name/Qualifications	Contribution	Experience
Boykin, Brad Environmental Scientist B.S. Biomedical Science MBT Biotechnology	Author	7 years experience in biotechnology and chemistry fields
Knight, Kelly B.S. Biology M.S. Biology/Coastal Zone Studies	Author	3 years Environmental Science with experience in biology
McCarty, Pam B.S./B.A. Economics M.A. Applied Economics	Author	3 years Environmental Science with experience in economics
McKee, W. James (Jamie) Environmental Scientist B.S. Marine Biology	Project Manager, Author	24 years Environmental Science with experience in freshwater, estuarine and marine applications
Nation, Michael Environmental Scientist B.S. Environmental Science/Policy	Author & GIS Analyst	8 years Environmental Science and GIS Arc View applications

This page is intentionally blank.

References

8. REFERENCES

- Air Force Materiel Command (AFMC), 2008. Personal communication between AFMC and SAIC regarding ammunition expenditures and number of trainees.
- Eglin AFB, 2003. Strategic Air Command (SAC) Alert Historic District Request for Determination of Eligibility.
- Eglin AFB, 2007. Outdoor Recreation, Hunting, and Fresh Water Fishing Map and Regulations, 2006-2007, Eglin AFB, Florida.
- Eglin Geographical Information System (GIS), 2007. Eglin Natural Resources Section GIS Data Sets located at Jackson Guard and 96 CEG CEVSN servers. Eglin Air Force Base.
- Federal Interagency Committee on Noise (FICON), 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.
- Federal Interagency Committee on Urban Noise (FICUN), 1980. Guidelines for Considering Noise in Land Use Planning and Control. Washington, D.C. NIS PB83-184838. June 1980.
- Florida Department of Environmental Protection (FDEP), 2002. *Florida Stormwater, Erosion, and Sedimentation Control Inspector's Manual*. Technical Report.
- Florida Department of Environmental Protection (FDEP), 2009. Okaloosa County 2009 Air Monitor Site. Accessed online at <http://www.dep.state.fl.us/air/flaqs/SiteDetail.asp?SiteID=120910002&requestyear>. 4 March 2009.
- Gault, K., 2006. Personal communication via interview between Mike Nunley, SAIC and Kathy Gault at 96 CEG/CEVSNW regarding RCWs and flatwoods salamanders on Eglin AFB in December 2006.
- Johnson, Justin. 2007. Personal communication between Justin Johnson, Jackson Guard, and Pamela McCarty, SAIC regarding land use and recreation information on Eglin Reservation.
- Mallory, W. R., and L. J. Campbell, 2003. Survey of X-636, Cultural Resources Support, Eglin Air Force Base, Okaloosa, Santa Rosa and Walton Counties, Florida. Report Prepared for Eglin Air Force Base. Prepared by Prentice Thomas and Associates, Inc. Report of Investigations No. 713.
- Mallory, W. R., and L. J. Campbell, 2005. Survey of X-799, Cultural Resource Investigations, Eglin Air Force Base, Okaloosa, Santa Rosa and Walton Counties, Florida. Report Prepared for Eglin Air Force Base. Prepared by Prentice Thomas and Associates, Inc. Report of Investigations No. 876.
- Mitsch, W. J., and J. G. Gosselink, 2000. *Wetlands*, 3rd Edition. John Wiley & Sons: New York.
- Overing, J. D., H. H. Weeks, J. P. Wilson, Jr., J. Sullivan, and R. D. Ford, 1995. *Soil Survey of Okaloosa County, Florida*. USDA, Natural Resources, Soil Conservation Service.
- Smith, J. A., J. K. Luers, and M. A. Dietenberger. 1991. User's Reference Guide For Noise Assessment Prediction System (NAPS). UDR-TR-91-105; U.S. Army Atmospheric Sciences Laboratory, White Sands Missile Range, NM. September 1991.
- Swearingen, M.E. and M.J. White, "Effects of Forests on Blast Noise," Technical Report TR-05-29, ERDC/CERL, Champaign, IL (2005).
- Thomas, P. M., and L. J. Campbell (eds), 1992. Eglin Air Force Base Historic Preservation Plan. Prepared for Eglin Air Force Base. New World Research, Inc., Report of Investigations No. 192.

References

- U.S. Air Force, 1995. Environmental Baseline Study Resource Appendices. Prepared by Earthtech for the Air Force Development Test Center (AFDTC), 46th Test Wing, Range Environmental Planning Office (46TW/XPE), Eglin Air Force Base, Florida.
- U.S. Air Force, 1996. Eglin AFB Transportation Plan – Eglin Air Force Base. 796 Civil Engineering Squadron (796 CES/CEORT), Eglin AFB, FL. February 1996.
- U.S. Air Force, 2003. *Final Environmental Assessment for the AFMC Regional Training Center, Eglin AFB, Florida*.
- U.S. Air Force, 2003a. Air Force Instruction 32-7044, Storage Tank Compliance. November 2003.
- U. S. Air Force, 2003b. Environmental Baseline Study-Resource Appendices (EBSRA) Volume I, Eglin Land Test and Training Range, Department of the Air Force Air Armament Center, Eglin Air Force Base, Florida, December 2003.
- U.S. Air Force, 2004. Eglin AFB Integrated Cultural Resources Management Plan, Eglin AFB, FL. September 2004.
- U.S. Air Force, 2006. Eglin's Wildfire Specific Action Guide Restrictions. Eglin Air Force Base. July, 2006.
- U.S. Air Force, 2007. Outdoor Recreation, Hunting, and Freshwater Fishing Map and Regulations 2006-2007. Jackson Guard, Eglin Air Force Base.
- U.S. Air Force, 2008a. *Proposed Implementation of the Base Realignment and Closure (BRAC) 2005 Decisions and Related Actions at Eglin AFB, FL Final Environmental Impact Statement*. Eglin AFB, FL. October 2008.
- U.S. Air Force, 2008b. *Interstitial Area Range Draft Environmental Assessment*. Eglin AFB, FL. September 2008.
- U.S. Air Force, 2008c. Personal communication between SAIC and 96 Ground Combat Training Squadron regarding hand grenade simulators and battlefield simulators net explosive weight.
- U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), 2005. Operational Noise Management: An Orientation Handbook for Army Facilities. November 2005.
- U.S. Army Corps of Engineers (USACE), 1987. *Wetlands Delineation Manual*. Wetlands Research Program Technical Report Y-87-1. Waterways Experiment Station.
- U.S. Environmental Protection Agency (USEPA), 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Office of Noise Abatement and Control. EPA Report 550/9-74-004.
- U.S. Environmental Protection Agency (USEPA), 1995. *America's Wetlands: Our Vital Link Between Land and Water*.
- U.S. Environmental Protection Agency (USEPA), 2002. USEPA 2002 National Emissions Inventory Microsoft Access Database. Retrieved from <http://www.epa.gov/ttn/chief/net/2002inventory.html#inventorydata>, in May 2006.
- U.S. Environmental Protection Agency (USEPA), 2005. Transportation and Air Quality. Retrieved from <http://www.epa.gov/otaq/>, on 10 February 2005.
- U.S. Environmental Protection Agency (USEPA), 2009a. National Ambient Air Quality Standards (NAAQS). Accessed online at <http://www.epa.gov/air/criteria.html>. 3 March 2009.

References

- U.S. Environmental Protection Agency (USEPA), 2009b. Currently Designated Nonattainment Areas for All Criteria Pollutants. Accessed online at <http://www.epa.gov/air/oaqps/greenbk/anc13.html>. 4 March 2009.
- U.S. Fish and Wildlife Service (USFWS), 1979. *National Wetlands Inventory Classification for Wetlands and Deepwater Habitats of the United States*.
- U.S. Geological Survey (USGS), 1990. Groundwater Atlas of the United States. Alabama, Florida, Georgia and South Carolina. HA 730-G.
- U.S. Geological Survey (USGS) 2004. Water Basics Glossary. Retrieved from http://capp.water.usgs.gov/GIP/h2o_gloss, on 12 March 2007.

References

This page is intentionally blank.

APPENDIX A

AGENCY AND PUBLIC REVIEW

AGENCY AND PUBLIC REVIEW

This appendix provides the record of coordination with the Florida State Clearinghouse (Attachment A-1). A public notice was published in the *Northwest Florida Daily News* on 18 April 2009, inviting the public to review and comment upon the EA. No comments were received. The public notification as submitted to the *Northwest Florida Daily News* is provided as Attachment A-2.

Attachment A.1. Record of Coordination with Florida State Clearinghouse**FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA)
CONSISTENCY DETERMINATION****Introduction**

This document provides the State of Florida with the U.S. Air Force's Consistency Determination under CZMA Section 307 and 15 C.F.R. Part 930 sub-part C. The information in this Consistency Determination is provided pursuant to 15 C.F.R. Section 930.39 and Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, as amended, and its implementing regulations at 15 C.F.R. Part 930.

This negative determination addresses the Proposed Action for the construction of Ground Combat Training Facilities on Eglin Air Force Base (AFB), Florida (Figure 1).

Proposed Federal agency action:

The Air Force Materiel Command proposes to construct new training facilities for its Ground Combat Training Squadron (GCTS) near the main cantonment area of Eglin AFB. These facilities would be constructed within two areas referred to as "The Triangle" and "Base Tango" (Figure 2). The GCTS facilities would provide garrison operations such as classrooms, billeting, administration functions, and warehouse areas. There would also be several cleared areas for training operations.

The area known as "Base Tango" would include the administrative, classroom and storage facilities as well as 20 acres of clear area for training and roadways to provide vehicular access (Figures 3 and 4). "The Triangle" would contain 30 acres cleared for a central training camp, two training village sites (8 acres each), as well as associated roadways and security fencing around the camp area (Figure 5). The entire site would be bounded by additional security fencing.

The Florida Natural Areas Inventory (FNAI) surveyed the proposed location in December 2007. Their assessment of these areas was that they were in moderate to poor condition due to the lack of fire and resulting encroachment of significant sand pine. A map depicting their survey results is included as Figure 6.

Federal Review

Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the proposed action are discussed in the following table.

Pursuant to 15 C.F.R. § 930.41, the Florida State Clearinghouse has 60 days from receipt of this document in which to concur with or object to this Consistency Determination, or to request an extension, in writing, under 15 C.F.R. § 930.41(b). Florida's concurrence will be presumed if Eglin AFB does not receive its response on the 60th day from receipt of this determination.

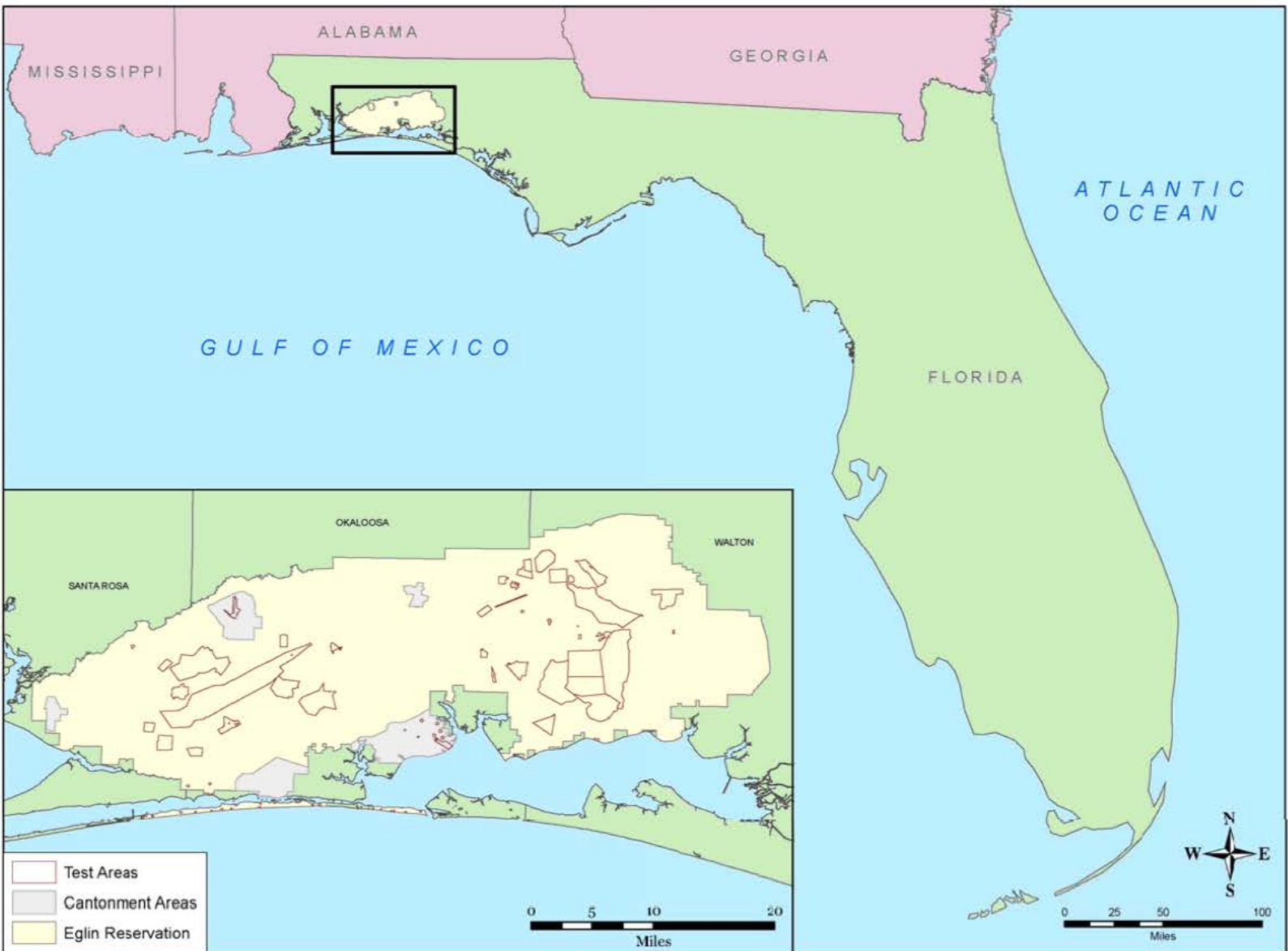


Figure 1: Regional Location of Eglin Air Force Base



Figure 2: Proposed Location of the Ground Combat Training Facilities on Eglin AFB

NOTE: Please refer to Chapter 2 for the latest configuration of Base Tango.

8/17/11

Ground Combat Training Squadron Environmental Assessment
Eglin Air Force Base, FL
Final

Page A-4



Figure 3: Proposed Ground Combat Training Facilities Layout

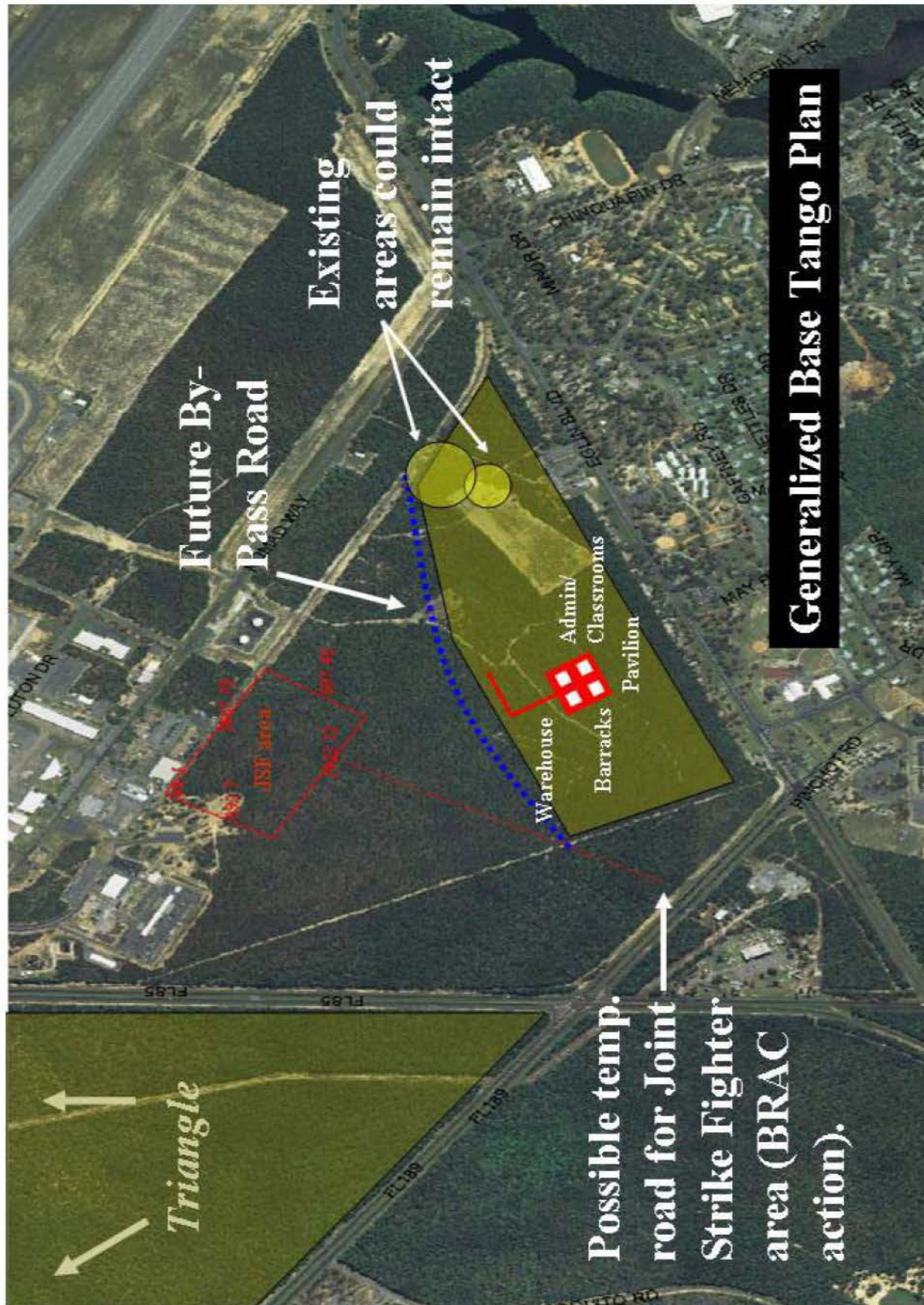


Figure 4: Proposed Ground Combat Training Facilities Layout

NOTE: Please refer to Chapter 2 for the latest configuration of Base Tango.

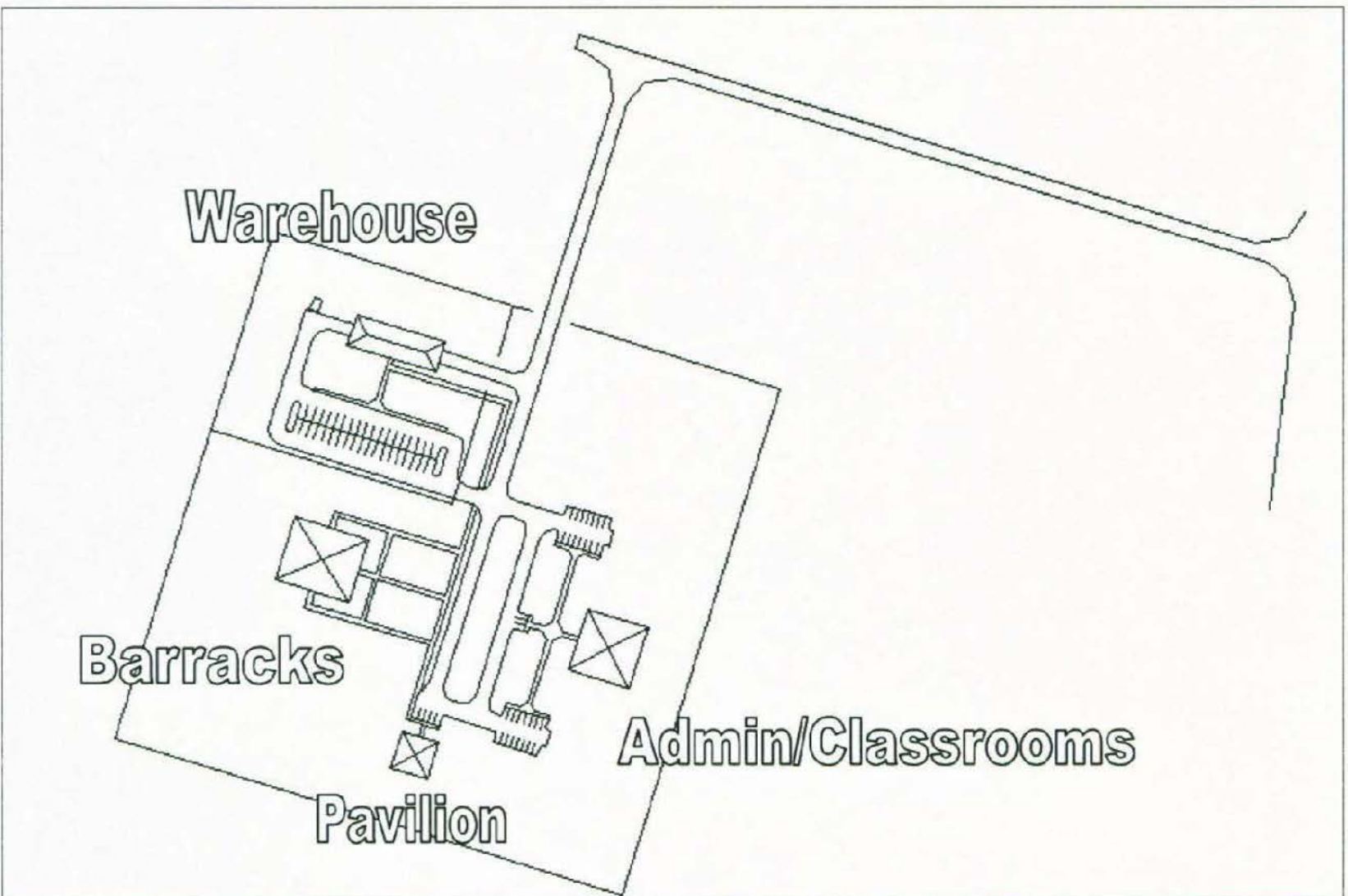


Figure 5: General Site Plan for Proposed Facilities within “Base Tango” Area

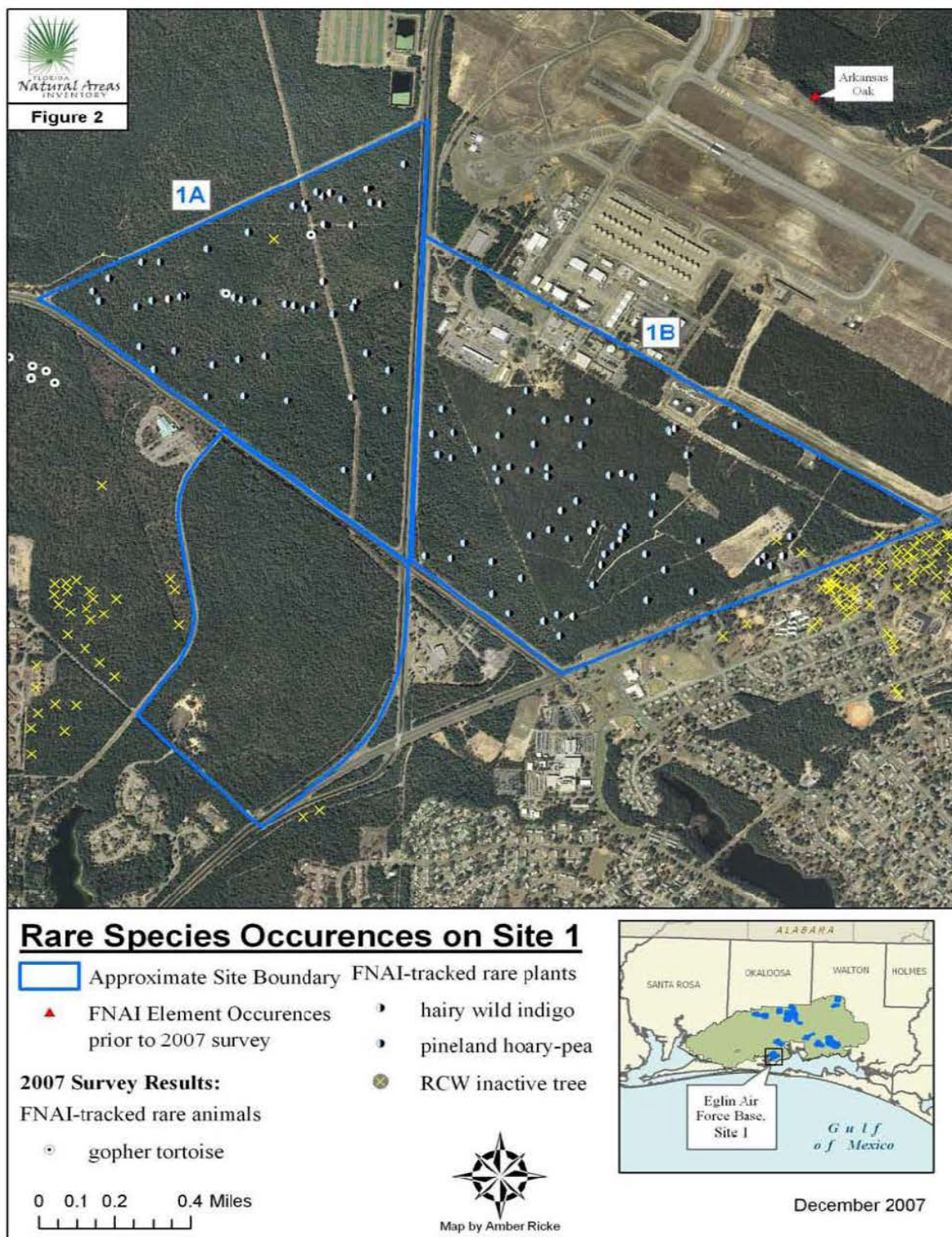


Figure 6: FNAI Survey Results for the Proposed Location

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
Chapter 161 <i>Beach and Shore Preservation</i>	<p>The proposed action would not affect beach and shore management, specifically as it pertains to:</p> <ul style="list-style-type: none"> • The Coastal Construction Permit Program. • The Coastal Construction Control Line (CCCL) Permit Program. • The Coastal Zone Protection Program. <p>All land activities would occur on federal property.</p>	Authorizes the Bureau of Beaches and Coastal Systems within DEP to regulate construction on or seaward of the states' beaches.
Chapter 163, Part II <i>Growth Policy; County and Municipal Planning; Land Development Regulation</i>	The proposed action would not affect local government comprehensive plans.	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.
Chapter 186 <i>State and Regional Planning</i>	The proposed action would not affect state plans for water use, land development or transportation.	Details state-level planning requirements. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252 <i>Emergency Management</i>	<p>The proposed action would not affect the state's vulnerability to natural disasters.</p> <p>The proposed action would not affect emergency response and evacuation procedures.</p>	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.
Chapter 253 <i>State Lands</i>	All activities would occur on federal property; therefore the proposed action would not affect state or public lands.	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.
Chapter 258 <i>State Parks and Preserves</i>	The proposed action would not affect state parks, recreational areas and aquatic preserves.	Addresses administration and management of state parks and preserves (Chapter 258).
Chapter 259 <i>Land Acquisition for Conservation or Recreation</i>	The proposed action would not affect tourism and/or outdoor recreation.	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands (Chapter 259).
Chapter 260 <i>Recreational Trails System</i>	The proposed action would not include the acquisition of land and would not affect the Greenways and Trails Program.	Authorizes acquisition of land to create a recreational trails system and to facilitate management of the system (Chapter 260).

Chapter 375 <i>Multipurpose Outdoor Recreation; Land Acquisition, Management, and Conservation</i>	The proposed action would not affect opportunities for recreation on state lands.	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs (Chapter 375).
Chapter 267 <i>Historical Resources</i>	The proposed action would not affect the cultural resources of the state.	Addresses management and preservation of the state's archaeological and historical resources.
Chapter 288 <i>Commercial Development and Capital Improvements</i>	The proposed action would not affect future business opportunities on state lands, or the promotion of tourism in the region.	Provides the framework for promoting and developing the general business, trade, and tourism components of the state economy.
Chapter 334 <i>Transportation Administration</i>	The proposed action would not affect transportation.	Addresses the state's policy concerning transportation administration (Chapter 334).
Chapter 339 <i>Transportation Finance and Planning</i>	The proposed action would not affect the finance and planning needs of the state's transportation system.	Addresses the finance and planning needs of the state's transportation system (Chapter 339).
Chapter 370 <i>Saltwater Fisheries</i>	The proposed action would not affect saltwater fisheries.	Addresses management and protection of the state's saltwater fisheries.
Chapter 372 <i>Wildlife</i>	<p>The FNAI survey performed in December of 2007 found the area to be moderate to poor in condition. There are some state-protected plant species as well as two inactive gopher tortoise burrows and one inactive red-cockaded woodpecker (RCW) tree.</p> <p>Eglin Natural Resources (96 CEG/CEVSN) would survey the area prior to construction to ensure the gopher tortoise burrows were still inactive and otherwise perform a relocation in accordance with an applicable state permit. The inactive RCW tree would not be affected by the proposed action.</p> <p>Therefore, the proposed action would be consistent with the State's policies concerning wildlife resource management.</p>	Addresses the management of the wildlife resources of the state.
Chapter 373 <i>Water Resources</i>	Eglin Water Resources (96 CEG/CEVCE) would ensure that all applicable permitting requirements would be satisfied in accordance with Chapters 62-621 and 62-346 of the Florida Administrative Code	Addresses the state's policy concerning water resources.

	<p>(FAC).</p> <p>All vehicle/ATV drive routes and planned roads would avoid water/wetlands. Training sites would also be sited to avoid water/wetlands and minimize erosion of sediments into surface waters or wetlands. Munitions and pyrotechnics would be managed to avoid impact to surface/ground water and wetlands.</p> <p>Since project will disturb greater than 1 acre of land, a NPDES Stormwater Construction Permit would be obtained pursuant to Chapter 62-621 FAC.</p> <p>New impervious surfaces (buildings, parking, roads, pads, etc.) would require stormwater permits pursuant to Chapter 62-346 FAC.</p> <p>Drinking water and wastewater plans would be coordinated by Eglin Water Resources and be in compliance with applicable statutes and regulations. New buildings would likely require backflow prevention devices and if applicable, a Public Water System Construction Permit, Consumptive Use Permit and Domestic Wastewater Facility Permit.</p> <p>Best Management Practices (silt fences, hay bales, etc.) would be used to eliminate soil erosion and sedimentation caused by stormwater runoff during and after construction activities.</p>	
Chapter 376 <i>Pollutant Discharge Prevention and Removal</i>	The proposed action would not affect the transfer, storage, or transportation of pollutants.	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.
Chapter 377 <i>Energy Resources</i>	The proposed action would not affect energy resource production, including oil and gas, and/or the transportation of oil and gas.	Addresses regulation, planning, and development of oil and gas resources of the state.
Chapter 380 <i>Land and Water Management</i>	The proposed action would not affect development of state lands with regional (i.e. more than one county) impacts. The proposed action would not include changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction.	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.

Chapter 381 <i>Public Health, General Provisions</i>	The proposed action would not affect public health.	Establishes public policy concerning the state's public health system.
Chapter 388 <i>Mosquito Control</i>	The proposed action would not affect mosquito control efforts.	Addresses mosquito control effort in the state.
Chapter 403 <i>Environmental Control</i>	<p>The Eglin Air Quality Program Manager (96 CEG/CEVCE) would coordinate any emergency generators, boilers, or other sources of air pollutants if required and a revision to the Title V permit would be completed. If applicable, generator engines would be certified to meet 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.</p> <p>The proposed action would be consistent with the State's policies regarding water quality, air quality, pollution control, solid waste management, or other environmental control efforts.</p>	Establishes public policy concerning environmental control in the state.
Chapter 582 <i>Soil and Water Conservation</i>	The proposed action would be implemented in accordance with all applicable Best Management Practices (silt fences, hay bales, etc.). Therefore, the proposed action would not affect soil and water conservation efforts.	Provides for the control and prevention of soil erosion.



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Labrecque
Lt. Governor

Michael W. Sole
Secretary

May 21, 2008

Mr. Stephen M. Seiber, Chief
Natural Resources Section
96 CEG/CEVSN
501 De Leon Street, Suite 101
Eglin AFB, FL 32542-5133

RE: Department of the Air Force – Notice of Intent, Construct Ground Combat Training Squadron Facilities on Eglin Air Force Base – Okaloosa County, Florida.
SAI # FL200803274135C

Dear Mr. Seiber:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the above Notice of Intent.

The Florida Department of Environmental Protection (DEP) notes that the proposed new facility will likely require an Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NFWFMD). For further assistance and information on ERP permitting requirements, please contact Mr. Lee Marchman at the NFWFMD, phone (850) 539-5999.

The West Florida Regional Planning Council (WFRPC) has reviewed the proposal and has no comments or questions at this time. Staff supports the proposal to conduct a survey of on-site gopher tortoise burrows and relocate any tortoises found prior to construction.

Based on the information contained in the documentation submitted and comments provided by our reviewing agencies, the state has determined that, at this stage, the proposed federal activities are consistent with the Florida Coastal Management Program (FCMP). The concerns identified by our reviewing agencies must, however, be addressed prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of any issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

"Mind Protected, Body Free"
www.dem.state.fl.us

Mr. Stephen M. Seiber
May 21, 2008
Page 2 of 2

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Ms. Lori Cox at (850) 245-2168.

Yours sincerely,



Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lec
Enclosures

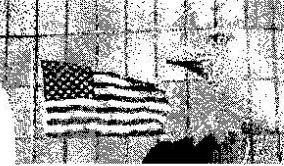
cc: John Gallagher, WFRPC



Florida

Department of Environmental Protection

"More Protection. Less Process"



[DEP Home](#) | [OIP Home](#) | [Contact DEP](#) | [Search](#) | [DEP Site Map](#)

Project Information	
Project:	FL200803274135C
Comments Due:	04/29/2008
Letter Due:	05/24/2008
Description:	DEPARTMENT OF THE AIR FORCE - NOTICE OF INTENT, CONSTRUCT GROUND COMBAT TRAINING SQUADRON FACILITIES ON EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.
Keywords:	USAF - GROUND COMBAT TRAINING SQUADRON FACILITIES, EGLIN AFB - OKALOOSA CO.
CFDA #:	12.200
Agency Comments:	
WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL	
The WFRPC has reviewed the proposal and has no comments or questions at this time. Staff supports the proposal to conduct a survey of on-site gopher tortoise burrows and relocate any tortoises found prior to construction.	
OKALOOSA - OKALOOSA COUNTY	
COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS	
DCA has no comment.	
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	
NO COMMENT BY FRED ROBINETTE ON 4/14/08.	
STATE - FLORIDA DEPARTMENT OF STATE	
No Comment/Consistent	
TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION	
Released Without Comment	
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	
The DEP notes that the proposed new facility will likely require an Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NWFWMD). For further assistance and information on ERP permitting requirements, please contact Mr. Lee Marchman at the NWFWMD, phone (850) 539-5999.	
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT	
No Comment/Consistent	

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

Visit the Clearinghouse Home Page to query other projects.

[Copyright and Disclaimer](#)
[Privacy Statement](#)

05/05/2008 13:08 8506371932

WFRPC

PAGE 02/02



Bill Roberts, Chairman
Bill Dozier, Vice-Chairman

Terry A. Joseph, Executive Director

MEMORANDUM

To: Laura P. Milligan Environmental Consultant, Florida State Clearinghouse,
FDEP, 3900 Commonwealth Boulevard, Mail Station 47, Tallahassee, FL
32399-3000

From: Mary F. Gutierrez, Environmental Planner, West Florida Regional Planning
Council

Date: April 16, 2008

Subject: Construction of Ground Combat Training Squadron Facilities on Eglin Air
Force Base, Florida. FL200803274135C; RPC# O 87 4-10-08

The proposal is for the construction of new training facilities for Eglin's Ground Combat Training Squadron. These facilities would be constructed with two areas referred to as "The Triangle" and "Base Tango".

The Triangle contains 30 acres to be cleared for a central training camp, two training village sites as well as associated roadways and security fencing around the camp area; the entire site would be bounded by additional security fencing. Base Tango would include administrative, classroom and storage facilities as well as 20 acres of clear area for training and roadways to provide vehicular access.

Based on the information provided, the West Florida Regional Planning Council has no comments or questions with regards to this project. However, we do support that a survey is conducted prior to construction to ensure that the gopher tortoise burrows are still inactive and proper relocation occur if it is found to be active.

P.O. Box 11399 • Pensacola, FL 32524-1399 • P: 850.332.7976 • 1.800.226.6914 • F: 850.637.1923
651 West 14th Street, Suite E • Panama City, FL 32401 • P: 850.769.4854 • F: 850.784.0456
www.wfrpc.org

COUNTY: OKALOOSA

SCH - USAF - EG

DATE: 3/25/2008

COMMENTS DUE DATE: 4/29/2008

CLEARANCE DUE DATE: 5/24/2008

SAI#: FL200803274135C

MESSAGE: 2008-02/24

STATE AGENCIES
COMMUNITY AFFAIRS
ENVIRONMENTAL PROTECTION
FISH and WILDLIFE COMMISSION
X STATE
TRANSPORTATION

WATER MNGMNT. DISTRICTS
NORTHWEST FLORIDA WMD

OPB POLICY UNIT

RPCS & LOC GOVS

RECEIVED

APR 30 2008

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description: DIR/OLGA

DEPARTMENT OF THE AIR FORCE - NOTICE OF INTENT, CONSTRUCT GROUND COMBAT TRAINING SQUADRON FACILITIES ON EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.

To: Florida State Clearinghouse**EO. 12372/NEPA Federal Consistency**

AGENCY CONTACT AND COORDINATOR (SCH)
3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

- ☒ No Comment
☐ Comment Attached
☐ Not Applicable

- ☒ No Comment/Consistent
☐ Consistent/Comments Attached
☐ Inconsistent/Comments Attached
☐ Not Applicable

From:

Division of Historical Resources

Division/Bureau:

Bureau of Historic Preservation

Reviewer: Samantha Earnest

Laura D. Kammereis
Deputy SHPO
4.29.2008

Date: 4/28/08

RECEIVED
BUREAU OF
HISTORIC PRESERVATION
2008 APR - 1 A 10:13

COUNTY: OKALOOSA

DATE: 3/25/2008

COMMENTS DUE DATE: 4/29/2008

CLEARANCE DUE DATE: 5/24/2008

SAI#: FL200803274135C

MESSAGE:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNIT	RPCS & LOC GOVS
COMMUNITY AFFAIRS			
ENVIRONMENTAL PROTECTION	X NORTHWEST FLORIDA WMD		
FISH and WILDLIFE COMMISSION			
STATE			
TRANSPORTATION			

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

DEPARTMENT OF THE AIR FORCE - NOTICE OF INTENT, CONSTRUCT GROUND COMBAT TRAINING SQUADRON FACILITIES ON EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.

To: Florida State Clearinghouse

AGENCY CONTACT AND COORDINATOR (SCH)
3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

EO. 12372/NEPA Federal Consistency

- | | |
|--|---|
| <input checked="" type="checkbox"/> No Comment | <input checked="" type="checkbox"/> No Comment/Consistent |
| <input type="checkbox"/> Comment Attached | <input type="checkbox"/> Consistent/Comments Attached |
| <input type="checkbox"/> Not Applicable | <input type="checkbox"/> Inconsistent/Comments Attached |
| | <input type="checkbox"/> Not Applicable |

From:

Division/Bureau: NFWFMD
Resource Management Div.
Duncan J. Cairns

Reviewer: Date 8 APRIL 2008

Date:

Attachment A.2. Public Notice**PUBLIC NOTIFICATION**

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability for public review of the Draft Environmental Assessment and Draft Finding of No Significant Impact to Construct a Ground Combat Training Squadron Complex at Eglin AFB, Fla.

The Air Force proposes to relocate the GCTS training area from its current temporary location at “Base Tango” between the West Gate Shoppette and the 33d Fighter Wing on Eglin main base to the adjacent parcel of land known as the Triangle across Hwy. 85. The Triangle is a wooded area encompassed by Hwy. 189, Hwy. 85, and General Bond Boulevard. No permanent structures would be constructed at the Triangle, and only minor tree clearing would occur at that location. The Air Force proposes to continue to use Base Tango and would construct facilities for garrison operations (barracks, weapon cleaning pavilion, warehouse, classrooms, administrative facilities and fuel storage tanks) at Base Tango. Facilities would be single and multi-story with reinforced concrete foundations, split-faced concrete block over steel frames, and have sloped standing seam metal roofs. Facilities would comply with Department of Defense force protection requirements according to unified facilities criteria. The total facility construction area is 42,291 square feet. Existing substandard facilities totaling 27,965 square feet would be demolished.

Your comments on this Draft EA are requested. Letters and other written or oral comments provided may be published in the Final EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided, including private addresses, will be used only to identify your desire to make a statement during the public comment period or to compile a mailing list to fulfill requests for copies of the Final EA or associated documents. However, only the names and respective comments of respondent individuals will be disclosed: personal home addresses and phone numbers will not be published in the Final EA.

Copies of the Draft EA and Draft FONSI may be reviewed at the Fort Walton Beach Public Library, 105 SE Miracle Strip Parkway, Fort Walton Beach, Fla., and the Niceville Library, 206 Partin Dr., Niceville, Fla. Copies will be available for review from April 18 through May 2, 2009. Comments must be received by May 5, 2009.

For more information or to comment on these proposed actions, contact: Mike Spaits, 96th Air Base Wing Public Affairs, 501 De Leon Street, Suite 101, Eglin AFB, Florida 32542-5133 or email: spaitsm@eglin.af.mil. Tel: (850) 882-2878; Fax: (850) 882-3761

This page is intentionally blank.